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The impact of structural empowerment on individual well-being and performance: Taking agent preferences, self-efficacy and operational constraints into account

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Abstract
We integrate psychological and socio-structural perspectives on empowerment by examining: a) the impact of *actual* structural empowerment initiatives (as opposed to *perceptions* of such empowering acts) aimed at enhancing employee influence over *which* tasks to perform (as opposed to *how* to perform them) on employee well-being and performance, b) the degree to which self-efficacy mediates these effects, and c) the extent to which, by applying such initiatives more selectively, performance-related empowerment effects may be amplified. Results of a simulation-based experiment indicate that while granting decision latitude over which tasks to perform has beneficial effects on both individual performance and well-being, self-efficacy partially mediates the effects only on the latter. Results also indicate that the direct performance-related effects of such interventions may be further increased without any significant decline in employee well-being to the extent that such structural empowerment is applied more selectively and offered as a performance-based incentive.

Keywords
autonomy, burnout, call center, customer service agents, empowerment, job design

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Empowerment has emerged as a popular managerial rhetoric and the focus of numerous scholarly studies, many of which suggest that empowerment practices are likely to offer substantial benefits including enhanced organizational agility and greater employee satisfaction (Chebat and Kollias, 2000). Most of this literature (e.g. Spreitzer, 1995, 1996; Thomas and Velthouse, 1990) refers to empowerment from a psychological perspective. Such a perspective focuses on a psychological state encompassing the individual job incumbent's perceptions of a) meaningfulness, b) competence, c) self-determination, and d) impact (Conger and Kanungo, 1988; Spreitzer, 1995, 1996). However, another perspective refers to empowerment as a managerial-initiated, socio-structural phenomenon. This perspective focuses on a set of organizational policies and practices initiated by management with the goal of addressing conditions that foster powerlessness and cascading decision-making authority down the organization hierarchy (Conger and Kanungo 1988; Eylon and Bamberger, 2000).

Despite the significant advances in empowerment research in recent years and its rhetorical appeal among managers, the practical workplace application of the insights generated by this scholarship has been subject to three important limitations. First, as others (e.g. Ahearne et al., 2005; Spreitzer, 2007) have noted, with the bulk of the research focusing strictly on the beneficial effects of psychological empowerment, few attempts have been made to link it to structural empowerment. Moreover, the few studies that have tried to link 'macro' (socio-structural) and 'micro' (psychological) approaches to empowerment (i.e. Ahearne et al., 2005; Kirkman and Rosen, 1999; Seibert et al., 2004) have tended to use cross-sectional field studies to demonstrate how perceptions of empowering practices/policies (i.e. perceptions of structural empowerment) likely shape the sense of being empowered (i.e. psychological empowerment). For example, Ahearne et al. (2005) used a 'leadership empowerment behavior' scale to measure salespeople's perceptions of managerial practices aimed at delegating responsibility down the hierarchy, and how these practices later affect self-efficacy and, eventually, performance. Similarly, Seibert et al. (2004: 336) conceptualized structural empowerment as empowerment climate, 'the perceived meaning of organizational structures and practices related to information sharing, boundaries and team accountability'. Although perceptions of structural empowerment may indeed reflect objective empowerment conditions, they may also be subject to method bias, particularly when a common set of actors is asked to assess both structural and psychological empowerment contemporaneously. Furthermore, as noted by Kirkman and Rosen (1999), such cross-sectional studies are unable to address issues of causality, thus raising the possibility of a reverse causal pathway with psychological empowerment facilitating enhanced performance, which, in turn, may encourage structural empowerment. Consequently, there is little research evidence to guide practitioners in their selection of those socio-structural practices most likely to generate the desired psychological and behavioral effects (Spreitzer, 2007).

Second, defining a job as a collection of tasks (say tasks A, B, and C), scholars have suggested that structural enhancements to employees' job discretion may be targeted to do any of the following: 1) enhance discretion over the manner in which these tasks are completed (means-discretion); 2) enhance discretion over when these tasks are executed (e.g. whether A is done before B, or B before A) (time-discretion); and 3) enhance discretion over which of these tasks is to be performed (i.e. whether A is executed instead of B

or in addition to it) (task-discretion) (Bell, 1966; Hawkins, 1992; Nickels, 2007). However, most of the research examining the impact of socio-structural empowerment has focused on the first two forms (i.e. policies and practices aimed at providing employees with means- or time-discretion), with little research examining the implications of the third (i.e. structures aimed at providing employees with task-discretion) (Edwards et al., 2002). This is not surprising given that the first two approaches represent more bounded forms of empowerment with any resulting increase in uncertainty potentially managed on the basis of enhanced employee training and socialization (Barley and Kunda, 1992; Edwards, 1979). In contrast, the latter is likely to introduce more complex, operational and coordinative uncertainties posing a significantly greater threat to managerial control (Bell, 1966; Hawkins, 1992). Nevertheless, to the degree that the latter form of structural empowerment allows employees to effectively self-design their jobs, the implications for employee self-actualization, motivation and well-being may be substantial. Indeed, to the degree that individuals are empowered to incorporate into their job more of those tasks offering enhanced benefits (e.g. better person-job fit, more learning and growth opportunities), superior outcomes for both the employee (e.g. enhanced well-being) and the employer (e.g. enhanced task performance) may be generated (e.g. Edwards, 1991; Spreitzer et al., 1997), thus making this form of structural empowerment deserving of investigation.

Finally, while socio-structural empowerment interventions may indeed enhance operational efficiency to the extent that they provide employees with the flexibility needed to provide innovative and/or timely responses to job-related problems or needs (Leach et al., 2003), researchers have largely neglected two potential limitations that such interventions may impose. First, when broadly applied across the workforce, empowerment initiatives may limit the ability of managers to predict, streamline and standardize critical work processes, and as such, create significant operational inefficiencies (e.g. Dover, 1999). Although, as noted above, more careful selection, more extensive training and agency-based compensation practices may be used to limit opportunistic behavior on the part of empowered employees (Bamberger and Meshoulam, 2000; Bowen and Lawler, 1995), alternative empowerment structures imposing fewer operational constraints on workflow and quality have yet to be proposed and tested. Second, while the well-being and performance of many individuals may be enhanced in more empowered environments where they are provided with more autonomy and job discretion, others may experience such environments as cognitively and/or physically demanding or stressful (e.g. Spreitzer et al., 1997; Wilkinson, 1998), or simply inconsistent with individual or societal power-related values (Raub and Robert, 2007). In response to these potential limitations, several researchers (Forrester, 2000; Sisselman and Whitt, 2007) have debated the potential benefits of using more targeted or selective socio-structural empowerment interventions; interventions that, by empowering only specific groups of employees, may place fewer demands on standardized workplace operations. However, to date, we are unaware of any empirical research examining the impact of such empowerment interventions on individual performance and well-being.

The current study seeks to address the three aforementioned gaps particularly as they apply with respect to the empowerment of service workers (e.g. customer service agents), a key segment of the workforce in most Western countries (Lee and Wolpin, 2006). We address the first gap by applying an experimental design in which we manipulate task

structures in an effort to assess the impact of objective structural empowerment on psychological empowerment, and the degree to which the latter mediates the impact of the former on individual performance and well-being. We address the second gap by focusing our experimental manipulation on the amount of influence agents have over which tasks to perform (as opposed to how to perform them). Finally, we address the third gap by recognizing risks potentially imposed by the broad-scale application of structural empowerment on both the firm's operational efficiency and the well-being of its employees, and proposing a more selective approach to socio-structural empowerment; one grounded on the economic theory of incentives and agency notions of reward distribution (Milgrom and Roberts, 1992) and in which the degree of employee empowerment is set to be commensurate with the employee's level of task performance. We then test this alternative, more selective approach by comparing its effects (on well-being and performance outcomes) with those of a more traditional, broad-scale approach to socio-structural empowerment (in which all employees in a given unit or at a given level are allocated the same degree of increased job authority).

The direct and indirect effects of socio-structural empowerment on individual outcomes

As noted above, the *structural* approach to empowerment focuses on policies and practices enacted by management aimed at cascading power down to the lower levels of the organization (Eylon and Bamberger, 2000; Spreitzer, 2007), so as to give 'employees increased decision-making authority in respect of the execution of their primary work tasks' (Wall et al., 2002: 147). Over the past three decades, studies have demonstrated the largely beneficial effects of such interventions on individual performance (e.g. Chen et al., 2007; Scott and Bruce, 1994) and well-being (e.g. Chebat and Kollias, 2000; Laschinger et al., 2001). For example, the job design literature (e.g. Hackman and Oldham, 1980) consistently shows that to the degree that jobs are restructured to afford employees greater autonomy, they are likely to generate enhanced employee attitudes, motivation and effort. Similarly, the high involvement work systems literature (e.g. Becker and Huseilid, 1998) suggests that employee well-being and performance may be enhanced to the degree that employees are given greater direct control over how to perform their job.

Theory suggests that a number of psychological mechanisms may underlie such beneficial effects of enhanced employee job control on individual performance and well-being. First, as suggested by Leach et al. (2003), policies and practices aimed at enhancing employee autonomy over how to perform job-related tasks may generate superior performance and employee well-being by providing job incumbents with the increased learning opportunities needed for enhanced performance, and the psychological growth needed for enhanced psychological well-being. A similar logic suggests that providing employees with the ability to self-design their jobs to incorporate more of those tasks offering a) learning or growth opportunities, or b) the ability to test or hone newly acquired competencies, is likely to only further enhance performance, self-actualization and well-being. Second, the beneficial effects of providing job incumbents control over which tasks to perform may also be explained on the basis of job design (Hackman and Oldham, 1980) and person-job (PJ) fit (Kristof, 1996) theories. Specifically, by allowing

employees greater control over which tasks to perform, workers may be able to better tailor their job to fit their competencies (e.g. knowledge, skills, and abilities) and needs (e.g. goals, interests, and values), and lower their exposure to input (e.g. customer) variability, resulting in enhanced motivation (Edwards, 1991) and lower exposure to role strain (Karasek, 1979; Spreitzer et al., 1997; Van Yperen and Hagedoorn, 2003). Aside from the established consequences of such strain on individual well-being (e.g. Hobfoll, 1989), strain may also take a toll on individual task performance in that strain and the negative emotional states often elicited by it can result in the redirection of cognitive resources away from job-related tasks (e.g. Tuten and Neidermeyer, 2004). Taken together, these theories therefore suggest that socio-structural empowerment initiatives aimed at providing employees with enhanced influence over which tasks to perform are likely to have a direct and beneficial effect on individual performance and well-being, or in other words:

> *Hypothesis 1*: Structural empowerment aimed at providing employees with enhanced influence over which tasks to perform is associated with lower levels of a) role overload and b) emotional exhaustion (indicators of emotional well-being), and higher levels of c) service quality and d) productivity (indicators of individual performance).

Recent attempts to integrate the socio-structural and psychological perspectives noted above (e.g. Ahearne et al., 2005; Kirkman and Rosen, 1999) suggest that the effects of structural empowerment on performance and well-being are largely if not fully mediated by indicators of psychological empowerment such as self-efficacy. In positing such a mediating role for psychological empowerment, researchers (e.g. Ahearne et al., 2005; Spreitzer, 2007) have largely built upon social cognitive theory (Bandura, 2001). For example, on the basis of this model, Ahearne et al. (2005: 946) posit that self-efficacy perceptions may be enhanced to the degree that empowerment initiatives afford employees with greater exposure to 'words of encouragement' and 'experience in mastering a task'.

Self-efficacy perceptions may also be enhanced to the degree that employees are enabled to focus their attention on those work-based tasks that they feel most confident in performing (Early and Lind, 1987). Providing employees with greater control over which tasks to perform may render the work environment more predictable as well as provide employees with an enhanced sense of mastery, thus contributing to feelings of personal efficacy (Gist and Mitchell, 1992; Glew et al., 1995). Furthermore, to the degree that social cognitive theory suggests that self-efficacy perceptions influence thought patterns, actions, and emotional arousal, this theory also provides a basis for theorizing about the possible impact of self-efficacy on individual performance and well-being. More specifically, because people regulate the level of effort they expend in accordance with the effects they expect from their actions (Bandura, 1986), individuals with a greater sense of self-efficacy are likely to expend greater effort and be more persistent in achieving or exceeding task-related outcomes (Seibert et al., 2004; Spreitzer, 1995). In addition, because self-efficacious individuals tend to feel more confident about their competencies, they are likely to respond more positively to job constraints or demands. Thus self-efficacy may also serve to buffer stress reactions (Bandura, 1986, 2001). Taken together, the aforementioned arguments suggest:

Hypothesis 2: The association between structural empowerment aimed at providing employees with enhanced influence over which tasks to perform, and individual well-being (i.e. role overload and emotional exhaustion) and performance (i.e. service quality and productivity) outcomes is mediated by self-efficacy.

Broad-scale versus selective empowerment

Recent research on empowerment (Ahearne et al., 2005; Forrester, 2000) suggests that the benefits of socio-structural empowerment, rather than being universal, may be stronger for some workers than for others. Indeed, despite the predominant focus on the benefits of employee empowerment in the literature, a number of scholars have noted that, particularly *when broadly applied across large portions of an organization's workforce*, structural empowerment may actually have adverse implications in terms of both operational efficiency (Bowen and Lawler, 1992, 1995; Wilkinson, 1998) and employee well-being (Kelly, 1992; Leach et al., 2003). These adverse implications may be particularly salient when employees are provided with the opportunity to choose which task to perform in that such empowerment practices are likely to limit the ability of managers to optimize the allocation of work tasks and ensure a coordinated response to any shift in production or service demands. This would suggest that it may be possible to maximize the benefits of socio-structural empowerment by applying such empowerment practices in a more targeted or *selective* manner; that is by empowering certain employees but not others.

Potential costs to operational efficiency Regarding operational efficiency, empowerment brings to bear a basic managerial dilemma, namely the degree to which employee preferences regarding what work should be performed as well as how it should be performed, should be taken into account (Batt and Moynihan, 2002; Edwards, 1979; Kunda, 1992). On the one hand, taking such preferences into account is likely to offer substantial benefits including enhanced organizational agility and greater employee satisfaction (Bowen and Lawler, 1992, 1995). On the other hand, the need to take such preferences into account can place an additional constraint on operational efficiency and can drastically reduce the predictability of work outcomes (Aksin et al., 2007; Sisselman and Whitt, 2007). Thus, structural empowerment represents a kind of moral hazard for managers in that, as a finite commodity, the more managers delegate authority, the more dependent they are on employee promptness and efforts, and the harder it becomes to control the process and outputs of work (Eylon, 1998).

In this sense, the ultimate efficacy of empowerment depends on the ability of the manager to reconcile the potential loss of control inherent in sharing authority with the potential employee motivation and productivity benefits that often accompany empowerment (Mills and Ungson, 2003; Spreitzer, 2007). Typically, in organizations adopting high involvement work systems, extensive resources are invested in selecting, training and socializing the workforce to ensure that the benefits of enhanced organizational agility and innovativeness through empowerment can be harnessed without incurring any additional risk to efficiency and administrative control (Bamberger and Meshoulam, 2000; Kinnie et al., 2000). Rigorous selection and extensive training ensure that employees have the requisite skills to handle the uncertainty inherent in non-routinized operations.

Socialization ensures that employee interests are sufficiently aligned with those of the employer such that decisions take into account organizational priorities and not simply personal preferences (Bowen and Lawler, 1995; Kunda, 1992).

However, in many organizations, technological, competitive, and labor market conditions may limit the efficacy of such staffing and development activities (Lepak and Snell, 1999), and thus the viability of practices grounded on broad-scale empowerment (e.g. Bowen and Lawler, 1992, 1995; Sisselman and Whitt, 2007). For example, in many service firms, the efficacy of broadly applied empowerment may be questionable given that employment relations often revolve around casual and short-term contracts making it unlikely for such firms to be able to amortize any significant investment in employee development (Bamberger and Meshoulam, 2000). And while service organizations have an economic interest in reducing the uncertainty inherent in service interactions, lacking such an investment in careful selection and extensive employee training and development, the allocation of discretion to customer contact employees may ultimately serve only to *increase* the uncertainty (e.g. Houlihan, 2002; Kinnie et al., 2000).

Potential costs to employee well-being While many scholars and business leaders view empowerment as an intrinsic motivator for most individuals and argue that empowered employees have the authority and resources needed to adequately cope with the situations and people they confront, others (e.g. Kelly, 1992; Spreitzer et al., 1997; Wilkinson, 1998) claim that delegating authority and involving employees in the decision-making process may increase employee mental strain and physical workload. Indeed, for some individuals, more responsibility may mean greater work demands and accountability-related stress. For these individuals, structural empowerment may decrease alienation but at the same time increase the risk of ambiguity and anomie, as they are required to choose their course of action and deal with the consequences of their choices (Botti and Iyengar, 2004). The well-being and performance of such individuals may therefore be enhanced in more rigid environments in which employees are provided with less autonomy and task-related discretion. Consequently, it may be that under certain circumstances, the potential benefits of a broad-scale application of empowerment for employees and employers may be counterbalanced by these adverse effects.

Selective empowerment However, as noted above, as an alternative to the broad-scale empowerment strategies typically adopted by organizations, it may be possible for employers to apply a more targeted or selective empowerment strategy, delegating discretion only to those employees deemed able and willing to handle it. Such a selective approach to empowerment is consistent with the increasing prevalence of co-mingled control and commitment strategies in service organizations (Houlihan, 2002). For example, Frenkel et al. (1998) identified an emerging hybrid of control and empowerment, which they characterized as 'mass customized bureaucracy' (MCB). MCB supplements regimented work with 'info-normative control' and pockets of creativity and discretion, a model that 'remains primarily bureaucratic, but includes elements associated with professional or knowledge-intensive settings' (Frenkel et al., 1998: 958). This developing human resource regime suggests the linking of discretion-allocation to actual performance as a possible means by which to reduce the risks of empowerment for both

management and labor. With structural authority selectively allocated on the basis of a combination of both norms of merit and agent interest, we refer to this model as a *selective empowerment* approach. In the context of such an approach, authority is not universally relinquished or equally distributed among members of a given workforce. Rather empowerment becomes something that is a reward – a kind of credit earned from one's employer by showing competence in helping to achieve job, unit or organizational objectives, with organizational leaders allocating to higher performing employees the opportunity to exercise more autonomy regarding which tasks to perform at a given point in time (Hollander, 1958; Spreitzer, 2007).

From an agency perspective, such performance-based structural empowerment might be seen as an efficacious means of delegating control in that it allocates some of the risks inherent in such delegation onto those whose discretion may ultimately be increased. Viewing discretion as a limited resource of varying but significant valence to many organizational members, by serving to align the interests of employees with those of management, such a selective approach to allocating discretion is likely to have effects similar to those generated by agency-based methods of allocating extrinsic rewards (Chebat and Kollias, 2000; Eisenhardt, 1989). Indeed, to the extent that added discretion may enhance individual performance (upon which pay may be partially contingent), such an approach to empowerment may further transfer empowerment-related risks from the employer to the employee. Consequently, selective empowerment may offer the organization a means by which to maximize the beneficial effects of empowerment without increasing operational risks.

While the use of financial inducements has featured prominently on both the agendas of human resource researchers and practitioners (Bullock and Lawler, 1984) and is widely used in service organizations (Batt, 2001), few researchers have linked the concepts of empowerment and incentives (the exceptions being Forrester, 2000 and Hollander, 1958), and few accounts of organizations deploying empowerment as an incentive for performance have been published (see for example, Aksin et al., 2007). Nevertheless, for two reasons, we propose that such a selective approach to structural empowerment is likely to generate beneficial effects above and beyond those of more traditional, broad-scale approaches. First, it is likely to do so because such an approach does not force control upon those who, despite their superior performance cannot or do not want to handle the uncertainty associated with self-selecting which tasks to perform (i.e. those for whom empowerment is interpreted as intensifying job demands or uncertainty and thus potentially posing a risk to individual well-being and performance; those for whom empowerment is inconsistent with individual or societal power-related norms and values – Raub and Robert, 2007). Rather, as noted above, it offers high performing agents the opportunity to exercise such volition and control. Second, a more selective approach to empowerment is likely to generate more beneficial effects than traditional, broad-scale approaches in that for those who can and want to decide their own course of action at work (i.e. those who feel comfortable with the uncertainty and accountability accompanying the delegation of authority), selective empowerment ensures that their interests stay aligned with those of the employer, increasing the likelihood that, even in the absence of task-specification and/or monitoring their performance will remain consistent with specified objectives. Accordingly, we propose:

Hypothesis 3: Individuals working under conditions of *selective* structural empowerment aimed at providing employees with enhanced influence over which tasks to perform exhibit lower levels of a) role overload and b) emotional exhaustion, and higher levels of c) service quality and d) productivity compared with individuals working under conditions of *broad-scale* structural empowerment aimed at providing employees with enhanced influence over which tasks to perform.

Method

Design and participants

In order to test the hypotheses generated above, we designed an experiment structured around a simulated customer contact center in which participants were required to address matters and confront situations typically handled by customer service agents employed by such organizations. To the degree that they are realistic and are structured around actual rather than hypothetical situations, simulations answer recent calls for experimental designs that are able to test causal hypotheses in ways that maximize both internal and external validity (Colquitt, 2008; Scandura and Williams, 2000). In order to maximize our study's external validity, we recruited undergraduate students in their final year of studies to participate in the study because such individuals serve as an important source of part-time labor for contact centers in Israel and other countries, and because, in terms of both age (24–30) and education, they are demographically similar to those typically employed as contact center agents (Barron, 2007). Thus, although scholars (e.g. Greenberg, 1987; Locke, 1986) claim that in research designed for theory-testing, concerns about representative samples may be sacrificed in favor of addressing threats to internal validity and achieving greater statistical power through controlled settings and standardized procedures, the students participating in the current research actually provide us with a highly representative sample.

The 92 participants were randomly assigned to one of three conditions, namely 'broad-scale empowerment', 'selective empowerment', and 'non-empowerment'. Participants were unaware of the research hypotheses, and were told that the research purpose was 'to test the efficiency of an agent-based consumer information system'. Before starting the simulation, participants were informed that, based on their performance, they would be paid up to $18 and receive two bonus points in an academic course. They were notified that performance would be evaluated (and remunerated) on the basis of both quantitative and qualitative measures (the specific quantitative and qualitative criteria are described in the 'Measures' sub-section below).

The simulation

Based on interviews with former and current contact center agents, we developed a simulated, email-based contact center in which participants were required to provide virtual customers with information regarding restaurants. There were two customer queues, one for regular or consumer customers, and the other for business clients. Pre-scripted customer requests were handled on the basis of 'first in first out'. Participants replied using

a specific website, which contained all the right answers to the pre-programmed 'customer' queries. In handling requests, participants were required to find a suitable answer to the customer's query.

Procedure

On entering the lab, participants were seated around the experimenter's terminal and provided with information regarding the nature and goals of the organization 'employing' them. The participants were also provided with information about the tasks they would be asked to perform and were then given a demonstration of the system. Depending on the experimental condition to which they were assigned, participants were then briefed on the nature of their work environment. Afterwards, participants were seated in front of individual terminals and were given 10 minutes to run through a self-training exercise. They then began the simulation, which consisted of three rounds, each 20 minutes long.

At the end of rounds 1 and 2, participants received performance feedback reflecting their own actual performance level in the round just completed and consisting of a quantitative score (provided by the computer) and a qualitative score (calculated as described in the 'Measures' below). Participants completed two surveys. The Time 1 survey was completed after the first round (in which no manipulation was applied). The Time 2 survey was completed at the end of the simulation, following the two manipulation rounds (i.e. rounds 2 and 3).

Experimental manipulation

The service operations literature suggests increasing employer interest in granting employees the ability to choose among the types of customers or customer problems they wish to handle at given points in time (Gans et al., 2003). With this in mind, we framed our experimental manipulation around the degree to which participants were provided with the opportunity to express their preference for the type of 'customers' that they preferred to service in what we referred to earlier as discretion over *which* task to perform (Wall et al., 2002; Wilkinson, 2001).

While interactions with *consumer* customers were scripted such that participants needed to provide only easily accessible information (i.e. trivial matters, such as address and phone number), in 80 percent of cases these interactions were scripted to require the agent to respond to one or two follow up requests from the same customer (an interaction was considered 'closed' only after all related follow-ups were handled). In addition, 80 percent of these interactions were scripted to reflect customer impatience or dissatisfaction with the service provided (e.g. 'Why did it take you so long to give me an answer – I thought you have an automatic system!'). In contrast, interactions with *business* customers, while scripted to be more complicated (e.g. requiring the participant to compare two restaurants), typically (i.e. in 80% of cases) involved only a single interaction. In addition, in 80 percent of business cases, these interactions were scripted to end with a 'thank you' email on the part of the customer (e.g. 'You were very helpful. Thanks!').

Consumer and business interactions were deliberately designed to be unique so as to facilitate the development of distinct agent preferences, and thus ensure the robustness of the

empowerment manipulation (see Gans et al., 2003; Wall et al., 2002; Wilkinson, 2001). Nevertheless, the different features of the tasks described above (e.g. level of complexity, number of follow-ups) made them equally demanding. A comparison of the average length of time needed to handle each type of interactions indicated no significant differences ($T = 1.284$, $p > 0.05$). It is therefore not surprising that there was no predominance of preferences of either consumer or business customers. Indeed following the first round, 15 (out of 30) participants in the broad-scale empowerment condition preferred consumer emails, 13 preferred business emails, and two had no preference – 'choosing not to choose'. Moreover, participants' preferences remained stable over the course of the experiment. Out of the 30 participants in the broad-scale condition, 21 demonstrated a consistent preference for one of the two types of interactions over time (of which 12 kept asking for more business interactions). The proportions were quite similar in the selective empowerment condition. Participants' preferences were unrelated to measures of either performance or well-being

As noted, participants were assigned to one of three conditions, namely no empowerment, broad-scale empowerment, and selective empowerment. We gave empowered participants the opportunity to express their customer preferences by moving a two-edged percentage roller at the bottom of their screen towards the type of customer that they preferred, namely consumer or business. For example, if a certain participant preferred handling business requests, he or she could set the roller on, say, '80% business emails'. From this point on, email routing coincided with that participant's preference. Participants could only indicate their preferences at the end of the first round (for routing in the second round) and at the end of the second round (for routing in the third round). Each incoming email was labeled as 'consumer' or 'business' (in large fonts on the top of the screen).

At the start of round 1, regardless of the condition to which they were assigned, all participants were told that they had to respond to all requests appearing on their screens. Participants in the '*non-empowerment*' condition were provided only with this information. They had no influence with respect to their job tasks (with email routing remaining fixed – 50 percent consumer emails and 50 percent business emails – throughout the entire experiment). By running the different conditions on different days, these control participants were unaware that other participants were being empowered. In contrast, at the beginning of the simulation, participants assigned to the '*broad-scale empowerment*' condition were informed that at the end of rounds 1 and 2, they would be able to express their preferences for the type of customers they would like to handle (i.e. consumer/business) in the subsequent rounds (i.e. rounds 2 and 3, respectively). Finally, participants in the '*selective empowerment*' condition were informed at the beginning of the simulation that, while they still had to respond to all requests appearing on their screens in round 1, based on their round 1 performance (disclosed to them at the end of the round), some of them would – in round 2 – be given the opportunity to express their preferences as to which type of customers they would like to handle. Similarly they were told that, based on their round 2 performance; a) some of them would be given the opportunity to express their preferences in round 3, while b) some of those empowered in round 2 might, as a function of poorer performance, no longer be given the opportunity to chose their customer (i.e. would be 'disempowered'). Consistent with our conceptualization of selective empowerment, we emphasized to all participants that at no point would they be required to exercise such discretion (i.e. express their preferences). Rather, those given the opportunity to express their preferences

but – for whatever reason – preferring not to do so could simply not touch the roller ('choosing not to choose'), and let the system route costumers based on its operational needs.

Manipulation check

The post-experiment manipulation check included items intended to ensure participants' comprehension of the authority allocation principle. Two items tapped each of the two principles – broad-scale empowerment and selective-empowerment (e.g. 'In this simulation all participants could ask for more emails from a certain type of customer with such requests given consideration whenever possible', and 'In this simulation, based on my performance on previous rounds, I was able to choose which type of customers to handle', respectively). Participants indicated their degree of agreement with these statements using a scale ranging from 1 (= completely disagree) to 7 (= completely agree). One-way ANOVA indicated significant differences in the expected directions between participants in the broad-scale and selective empowerment conditions, and both differed significantly from the 'non–empowerment' condition (mean difference 2.35, $p < 0.01$; and mean difference 2.84, $p < 0.01$, respectively).

Measures

Self-efficacy Self-efficacy was measured at both Time 1 (end of round 1) and Time 2 (end of round 3), on the basis of a scale adopted from Chen et al. (2001). Respondents were asked to indicate their level of agreement (ranging from 1 = strongly disagree to 7 = strongly agree) with eight statements (e.g. 'I am confident that I can perform effectively on many different tasks'). Cronbach's coefficient α for this scale was 0.82.

Performance Performance was assessed using two measures: service productivity and service quality. Service productivity referred to the number of emails that were handled by the participant (i.e. a continuous measure reflecting email volume). Service quality referred to the degree to which answers were correct and courteous. This measure was based on content analysis. Two raters read all the answers provided by all participants, and graded each answer on two scales: correctness (the degree to which the answer was correct and accurate) and courtesy (the degree to which the participant was polite and willing to help in his/her response). Each scale ranged from 0 to 100. Inter-rater agreement (measured on the basis of Person correlation) was 0.94. Each of these two parameters (i.e. correctness and courtesy), as a single indicator, may be insufficient to articulate the multidimensional nature of service quality (Parasuraman et al., 1985). Moreover, the correlation coefficient for these two parameters was 0.67. Consequently, we used the average of these two quality-based values to generate a single quality score for each participant (ranging from 0 to 100).

Given that round 1 was similar in all conditions (i.e. a baseline round in which no manipulation took place) we used the mean scores of rounds 2 and 3 only as indicators of service quantity and quality.

Role overload Role overload was assessed on the basis of three items adopted from Beehr et al. (1976). To further enhance the adaptability of this measure to our lab design

(and ensure its validity) we adopted three additional items from Caplan (1971). Respondents were asked to indicate their level of agreement (ranging from 1 = strongly disagree to 7 = strongly agree) with these six statements concerning experienced work load during the simulation (e.g. 'I had to work under continuous time pressure'). Perceived role overload was measured twice – after the first round (Time 1, $\alpha = 0.80$) and at the end of the simulation (Time 2, $\alpha = 0.81$).

Emotional exhaustion Consistent with previous laboratory experiments examining emotional well-being (e.g. Moss and Lawrence, 1997), we assessed emotional exhaustion on the basis of an instrument adopted from Maslach and Jackson (1981). Using this scale, respondents were asked to indicate their level of agreement (ranging from 1 = strongly disagree to 7 = strongly agree) with eight statements regarding experienced exhaustion during the simulation (e.g. 'I felt mentally exhausted'). Perceived emotional exhaustion was measured twice – after the first round (Time 1) and at the end of the simulation (Time 2). Cronbach α were 0.73 and 0.79, respectively.

The self-efficacy, role overload and emotional exhaustion scales were translated into Hebrew. The translated scales were back-translated into English to ensure the quality of translation.

Control variables In all analyses control variables included two demographic variables (gender and age) and one personality trait, namely Type A behavior pattern, which has been found to be associated with a number of relevant beliefs and affective states including autonomy, self-efficacy, and stress (e.g. Chesney et al., 1981). We assessed Type A behavioral pattern on the basis of a scale adopted from Friedman and Rosenman (1959). Using this scale ($\alpha = 0.72$), respondents were asked to indicate their level of agreement (ranging from 1 = strongly disagree to 7 = strongly agree) with 20 items (e.g. 'Do you get impatient when things don't go as quickly as they could?'). In addition, given that the simulation used both English and Hebrew and required that participants find answers on the internet, we included two other control items in which participants were asked to indicate their level of familiarity with the internet and English proficiency (on a scale ranging from 1 = very low to 5 = very high). We also controlled for participants' previous experience in a call center work. Finally, in order to assess the influence of empowerment on the level of well-being and performance at 'time 2', for each hypothesis we controlled for the 'time 1' variable of the dependent variable (i.e. the level of the dependent variable after round 1, prior to the manipulation application).

Test of hypotheses To test Hypotheses 1 and 3 we used the General Linear Model (GLM) approach to ANCOVA to determine whether well-being and performance scores varied significantly among subjects who were assigned to the different conditions. This analysis used the entire sample ($n = 92$). To test Hypothesis 2, we applied the three-step procedure for testing mediation effect recommended by Baron and Kenny (1986), using a series of regression analyses. These analyses were based on two conditions only, that is, 'broad-scale empowerment' and 'non-empowerment' ($n = 62$). Given that none of the control variables were significant, with the exception of the 'time 1' measure of the dependent variables, the results presented below do not include the control models.[1]

Results

The means, standard deviations, and intercorrelations of the study variables are displayed in Table 1. The bivariate results indicate a significant relationship between broad-scale empowerment and all four individual outcomes, namely role overload (r = -.347, $p < 0.01$), emotional exhaustion (r = -.315, $p < 0.01$), service quantity (r = .418, $p < 0.01$), and service productivity (r = .266, $p < 0.05$). Selective empowerment was positively correlated with service quantity (r = .421, $p < 0.01$) and service productivity (r = .488, $p < 0.01$).

Hypotheses 1 proposed that empowerment is inversely associated with a) role overload and b) emotional exhaustion, and positively associated with c) service quality and d) productivity. GLM results (see Table 2) support this hypothesis regardless of the empowerment condition in which empowered subjects were placed. Specifically, participants assigned to the broad-scale and selective empowerment conditions were significantly less overloaded and exhausted compared with participants assigned in the non-empowerment condition (for role overload: B = .-862, $p < 0.01$ with an effect size (Partial Eta-Squared) of .170 and B = -.781, $p < 0.01$ with an effect size of .148, respectively; for emotional exhaustion: B = -1.274, $p < 0.01$ with an effect size of .259 and B = .947, $p < 0.01$ with an effect size of .214, respectively). Similarly, Table 2 indicates that both performance indicators were significantly better in both the broad and selective empowerment conditions compared with the non-empowerment condition (for service quality: B = 7.143, $p < 0.01$ with an effect size of .102, and B = 12.27, $p < 0.01$ with an effect size of .245, respectively; for service productivity: B = 2.915, $p < 0.05$ with an effect size of .053 and B = 6.761, $p < 0.01$ with an effect size of .212 respectively).

Hypothesis 2 suggested that the influence of empowerment on participants' well-being and performance is mediated by perceived self-efficacy. Following convention for assessing mediation effects (Baron and Kenny, 1986), we first tested whether the independent variable (i.e. empowerment) accounted for variation in the presumed mediator (i.e. perceived self-efficacy). A multivariate regression analysis confirmed that, when controlling for self-efficacy at T1, empowerment was positively related to self-efficacy at T2 (B = 2.261, $p < 0.01$) (see third column of Table 4). Second, we tested whether the presumed mediator – self-efficacy at T2 – accounted for variation in all four dependent variables when controlling for this same variable at T1. As shown in Table 3, while self-efficacy at T2 was found to be associated with role overload and emotional exhaustion (B = -.229, $p < 0.01$ and -.334, $p < 0.01$, respectively; ΔR^2 significant for both models: 0.158, $p < 0.01$ and 0.225, $p < 0.01$, respectively), no similar association was found with respect to service quality and service productivity (B = 1.003, $p > 0.05$ and B = .539, $p > 0.05$, respectively). Thus, there was no point in proceeding with the mediation test with respect to performance. However, with respect to well-being we did proceed with the third, final condition by testing whether the previously significant effects of the empowerment on the two well-being outcomes are decreased when controlling for the mediator. As shown in Table 4 (see Mediation Model), after self-efficacy at T2 was entered, the coefficients for empowerment dropped both in magnitude and statistical significance (for role overload: from B = -.533, $p < 0.01$ to B = -.197, $p < 0.05$; for emotional exhaustion: from B= -.837, $p < 0.01$ to B = -.391, $p < 0.05$), suggesting a partial mediation effect for self-efficacy.

Table 1 Means, standard deviations, and intercorrelations (Pearson) of the study variables ($n = 92$)

Variable	M	SD	−1	−2	−3	−4	−5	−6	−7	−8	−9	−10	−11	−12	−13	−14	−15	−16	−17
1 Gender[a]	0.47	0.5	–																
2 Type A behavior pattern	36.7	10.7	0.05	–															
3 Previous work in a call center[b]	0.95	0.18	−0.07	−0.09	–														
4 Fluency in English	4.2	0.76	−.214*	−0.2	−0.114	–													
5 Familiarity with the internet	4.4	0.64	−0.067	−0.003	−0.092	.403**	–												
6 Self-efficacy at T1	4.5	0.97	0.014	0.191	−0.114	0.011	0.044	–											
7 Role overload at T1	4.6	1.08	0.102	0.119	−0.006	−0.136	−0.185	−0.192	–										
8 Emotional exhaustion at T1	3.9	0.97	0.146	.247**	−.235*	−0.165	−0.181	−0.175	.228*	–									
9 Service quality at T1	73.7	14.9	0.167	0.071	0.049	0.025	0.093	0.189	−0.031	−0.079	–								
10 Service productivity at T1	41.4	10.1	−0.05	0.19	0.087	0.023	−0.019	0.156	−0.097	−0.049	.285**	–							
11 Self-efficacy at T2	5.1	1.5	−0.016	0.102	−0.094	−0.035	0.068	.223*	−0.139	−0.114	0.112	.318**	–						
12 Role overload at T2	4.7	0.99	0.092	0.075	0.162	−0.024	−0.186	−0.168	.484**	0.152	−0.13	−0.064	−.458**	–					
13 Emotional exhaustion at T2	4.1	1.05	0.192	0.052	−0.092	−0.049	0.01	−0.141	.358**	.481**	−0.176	−0.183	−.401**	.338**	–				

(Continued)

Table 1 (Continued)

Variable	M	SD	–1	–2	–3	–4	–5	–6	–7	–8	–9	–10	–11	–12	–13	–14	–15	–16	–17
14 Service quality at T2	79.6	11.8	–0.009	.230*	0.025	–0.033	–0.066	0.087	–0.105	–0.185	.495**	.343**	0.159	–0.144	–.303**	–			
15 Service productivity at T2	47.4	6.8	–0.087	.248*	0.137	–0.016	–0.112	0.091	–0.111	–0.126	.282**	.530**	.253*	–0.134	–.439**	.493**	–		
16 Broad-scale empowerment	0.33	0.47	–0.14	–0.066	–0.003	0.158	0.094	–0.106	–0.181	0.083	–0.092	0.008	0.176	–.347**	–.315**	.418**	.266*	–	
17 Selective empowerment	0.33	0.47	0.138	0.169	–0.003	–0.088	–0.053	0.087	0.119	–0.067	0.124	0.297	.444**	0.093	–0.181	.421**	.488**	–.484**	–
18 No empowerment	0.34	0.48	0.002	–0.16	0.006	–0.068	–0.041	0.023	0.171	–0.016	–0.032	–0.285	–.410**	.434**	.489*	–.190*	–.458**	–.508**	–.508**

[a]For gender, 'male' served as a reference (males = 0; females = 1).
[b]For previous work in call centers, 'yes' served as a reference (yes = 0, no = 1).
*$p < 0.05$; ** $p < 0.01$.

Table 2 Analysis of covariance testing the influence of empowerment on well-being and performance ($n = 92$)

Model variable	1) Role overload			2) Emotional exhaustion			3) Service quality			4) Service productivity		
	B	SE	Part. η^2	B	SE	Part. η^2	B	SE	Part. η^2	B	SE	Part. η^2
Gender[a]	.166	.170	.011	.256	.165	.028	−3.026	1.981	.027	−1.334	1.130	.017
Type A behavior pattern	.013	.008	.028	−.001	.008	.000	.115	.093	.018	.075	.054	.023
Previous work in a call center[b]	1.049	.569	.043	.386	.467	.008	2.937	5.392	.004	4.156	3.121	.021
Fluency in English	.243	.125	.047	.103	.121	.009	−.696	1.450	.003	.598	.830	.006
Familiarity with the internet	−.231	.144	.030	.203	.139	.025	−.175	1.642	.000	−1.322	.939	.023
Dependent variable at Time 1	.353**	.082	.184	.579**	.091	.328	.378**	.065	.287	.241**	.058	.252
Broad-scale empowerment[c]	−.862**	.209	.170	−1.274**	.223	.259	7.143**	2.321	.102	2.915*	1.430	.053
Selective empowerment[c]	−.781**	.206	.148	−.947**	.199	.214	12.27**	2.364	.245	6.761**	1.352	.212
Model summary[d]	Adjusted $R^2 = .378$ $\Delta R^2 = .141$**			Adjusted $R^2 = .483$ $\Delta R^2 = .270$**			Adjusted $R^2 = .421$ $\Delta R^2 = .173$**			Adjusted $R^2 = .426$ $\Delta R^2 = .102$**		

[a]For gender, 'male' served as a reference.
[b]For previous work in call centers, 'yes' served as a reference.
[c]For empowerment conditions, 'non-empowerment' served as a reference.
[d]Relative to the control model.
*$p < 0.05$; **$p < 0.01$.

Table 3 Linear regressions testing the influence of self-efficacy on well-being and performance ($n = 62$)

Model variable	1) Role overload		2) Emotional exhaustion		3) Service quality		4) Service productivity	
	B	SE	B	SE	B	SE	B	SE
Gender[a]	.347	.215	.285	.222	−4.869	2.500	−1.901	1.254
Type A behavior pattern	.010	.012	−.015	.012	.294	.156	.119	.060
Previous work in a call center[b]	.231	.595	1.246	.642	.925	6.899	4.242	3.509
Fluency in English	−.067	.168	−.251	.169	1.762	1.922	.900	.927
Familiarity with the internet	−.142	.188	.537**	.194	−2.282	2.194	−1.642	1.067
Self-efficacy at Time 1	−.121	.104	.125	.105	−2.319	1.193	−.147	.656
Dependent variable at Time 1	.310**	.098	.576**	.128	.306**	.083	.303**	.063
Self-efficacy at Time 2	−.229**	.070	−.334**	.069	1.003	.784	.539	.452
Model summary[c]	Adjusted R^2=.397 ΔR^2=.158**		Adjusted R^2=.411 ΔR^2=.225**		Adjusted R^2=.224 ΔR^2=.021		Adjusted R^2=.284 ΔR^2=.011	

[a]For gender, 'male' served as a reference.
[b]For previous work in call centers, 'yes' served as a reference.
[c]Relative to the control model.
*$p < 0.05$; **$p < 0.01$.

Table 4 Linear regressions testing the mediating effect of self-efficacy ($n = 62$)

Model variable	1) Role overload		2) Emotional exhaustion		3) Self-efficacy	
	B	SE	B	SE	B	SE
Main effect model						
Gender[a]	.111	.181	.181	.185	.274	.303
Type A behavior pattern	.008	.009	−.011	.009	−.024	.017
Previous work in a call center[b]	.927	.503	.404	.529	−.093	.833
Fluency in English	.224	.134	.073	.136	−.693**	.231
Familiarity with the internet	−.213	.153	.229	.156	.523*	.258
Self-efficacy at Time 1	−.145	.095	.040	.095	.290*	.144
Dependent variable at Time 1	.346**	.088	.624**	.102	–	–
Empowerment (broad-scale)[c]	−.533**	.199	−.837**	.196	2.261**	.297
Model summary[d]	Adjusted R^2=.377 ΔR^2=.122**		Adjusted R^2 = .344 ΔR^2 = .131**		Adjusted R^2 =.402 ΔR^2 = .377**	
Mediation model						
Gender[a]	.168	.177	.260	.177		
Type A behavior pattern	.010	.008	−.008	.009		
Previous work in a call center[b]	.929	.488	.375	.501		
Fluency in English	.178	.131	.010	.130		
Familiarity with the internet	−.154	.151	.301	.164		
Self-efficacy at Time 1	−.088	.095	.116	.093		
Dependent variable at Time 1	.341**	.086	.599**	.097		
Empowerment (broad-scale)[c]	−.197*	.092	−.391*	.173		
Self-efficacy at Time 2	−.162**	.055	−.211**	.065		
Model summary[e]	Adjusted R^2 = .432 ΔR^2 = .054**		Adjusted R^2 = .412 ΔR^2 = .069*			

[a]For gender, 'male' served as a reference.
[b]For previous work in call centers, 'yes' served as a reference.
[c]For empowerment conditions, 'non-empowerment' served as a reference.
[d]Relative to the control model.
[e]Relative to the main effect model.
*$p < 0.05$; **$p < 0.01$.

To further explore these partial mediation effects for both role overload and emotional exhaustion we conducted a supplementary structural equation modeling (SEM) analysis. Consistent with the regression-based analysis presented above, coefficients for the paths from empowerment to role overload/emotional exhaustion were negative and statistically significant. In addition, empowerment had a direct positive effect on self-efficacy and self-efficacy had an inverse direct effect on role overload/emotional exhaustion, suggesting that empowerment had an indirect effect on role overload/emotional exhaustion through self-efficacy. Figures 1 and 2 illustrate the observed, partially mediated models (including the path coefficients) – for role overload and emotional exhaustion, respectively. The total

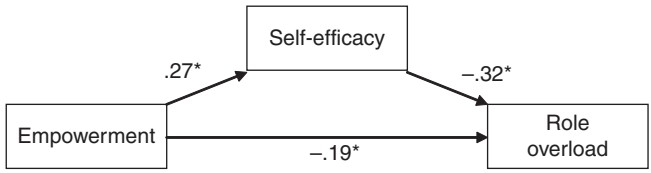

Figure 1 Path model for the effect of empowerment on role overload, partially mediated by self-efficacy

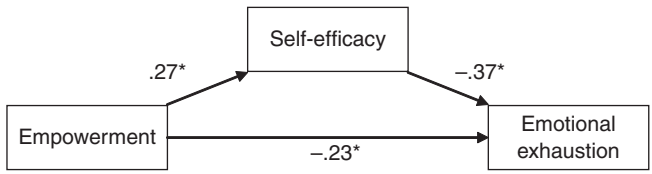

Figure 2 Path model for the effect of empowerment on emotional exhaustion, partially mediated by self-efficacy

effect of empowerment on role overload and emotional exhaustion (i.e. the product of the indirect effects plus the direct effect) is -.28 and -.33, respectively, with the self-efficacy mediated, indirect effects accounting for 32% and 37% of these total effects, respectively.

In terms of the relative effects of selective empowerment over the more typically applied, broad-scale approach, Hypotheses 3 stated that, compared with broad-scale empowerment, selective empowerment would, on average, generate lower levels of a) role overload and b) emotional exhaustion, and higher levels of c) service quality and d) productivity. This hypothesis was only partially supported. As Table 2 indicates, the effect sizes for both performance indicators were more than twice as strong in the selective empowerment condition (for service quality, .245; for service productivity, .212). However, the effects of selective empowerment on employee well-being were not stronger, and in fact, a little weaker, compared with those found in the broad-scale empowerment condition (for role overload: effect sizes of .148 and .170, respectively; for emotional exhaustion: effect sizes of .214 and .259, respectively). *F* tests further indicate that participants in the selective empowerment condition felt significantly less overloaded and exhausted than participants in the non-empowerment condition (for role overload: $F_{(2,89)} = 11.8$, $p < 0.01$; mean difference = -.72, $p < 0.05$; for emotional exhaustion: $F_{(2,89)} = 14.4$, $p < 0.01$; mean difference = -.97, $p < 0.01$), but there were no significant differences between the selective and broad-scale conditions (for role overload: mean difference = .36, $p > 0.05$; for emotional exhaustion: mean difference = .18, $p > 0.05$).

Discussion

The results presented above expand – in a number of ways – on the findings of earlier research examining the link between structural empowerment on the one hand, and

individual well-being and performance on the other. First, they confirm earlier findings (e.g. Chen et al., 2007; Laschinger et al., 2001; Scott and Bruce, 1994) that structural empowerment has generally beneficial effects on both of these outcomes. Still, in contrast to most of the existing structural empowerment research exploring the implications of providing employees with greater discretion as to *how* to perform assigned tasks, the current study focused on an intervention targeted at providing individuals with greater influence in deciding *which* tasks to perform. As such, the consistency of the current findings with the earlier research is encouraging in that it suggests that efforts aimed at empowering individuals to determine *which* tasks to perform, is a less bounded and therefore potentially more risky form of empowerment (e.g. Hawkins, 1992), are likely to generate outcomes similar to those aimed at providing individuals with greater discretion in determining *how* to perform them.

Second, the findings presented above enhance our understanding of the causal mechanisms potentially linking such structural empowerment interventions and individual outcomes. More specifically, they indicate that while the performance-related effects of devolving to agents decisions over which tasks to perform are *unexplained* by self-efficacy, the effects of such a practice on well-being *are* at least partially mediated by this variable. As such, these findings suggest that one of the ways in which such a form of structural empowerment may operate to buffer against feelings of strain (i.e. overload and exhaustion) is by enhancing a key psychological resource, namely self-efficacy. To the extent that individuals perceive themselves as having greater ability to control stressors and attain resources upon which to draw on when coping with such stressors, they may be less susceptible to the work-based stresses resulting in such strain (Edwards, 1991; Hobfoll, 1989; Karasek, 1979).

Our findings significantly diverge from the three studies that we are aware of which examined the mediating effect of self-efficacy on the link between socio-structural empowerment and employee outcomes – those by Ahearne et al. (2005), Kirkman and Rosen (1999), and Seibert et al. (2004) – in that these researchers all found the effects of employee-perceived empowering acts on performance to be largely or entirely mediated by self-efficacy. The *partial* mediation effect found in our study suggests that performance-related effects may be less a function of a causally prior increase in self-efficacy and more a function of enhanced learning and competency development facilitated by task self-selection. A direct impact on performance may also result from individuals' ability to focus a greater proportion of their cognitive resources on job-related tasks (as opposed to stress-coping).

Notably, despite the fact that we examined the effects of *actual* structural changes in a controlled experimental context while they studied the effects of *perceived* supervisory empowering acts in a field context, the effects of empowerment on self-efficacy perceptions were similar across studies. This indicates that the primary divergence was in the link between self-efficacy and performance, and suggests that effects of self-efficacy on performance may, as suggested by Stajkovic and Luthans (1998), be contingent on the type of tasks being performed and/or the type of performance measures applied. Additionally, and perhaps most relevant for the current study, it may also be contingent on the amount of time between any enhancement in self-efficacy and the assessment of performance. If enhanced self-efficacy has an impact on performance by facilitating time-dependent processes such

as risk-taking and learning, then it is likely that longer-duration experiments or field studies are required in order to detect such effects. We encourage researchers to further explore the possible factors moderating the link between self-efficacy and individual performance.

Finally, our findings expand on previous empowerment research by demonstrating the potential advantages of selective empowerment over the more widely studied, broad-scale approach. While selective empowerment was found to offer no benefit over and above broad-scale empowerment with regard to participants' well-being, it is important to point out that the former *did* result in significantly greater performance-related effects without *sacrificing* participants' well-being. That is, while the positive effects of selective, relative to broad-scale structural empowerment on participants' performance were significant, there was no significant difference in the effects of these two alternative forms of empowerment with respect to participants' well-being. Such findings are notable in that selective forms of empowerment may have the potential to substantially lower the risk to employers associated with broad-scale empowerment noted by others (e.g. Bowen and Lawler, 1995). By adopting a more selective form of empowerment, employers may be able to limit the extent to which employee preferences serve as a constraint on the efficient allocation of work tasks (i.e. the number of employees whose preferences need to be considered remains limited), while still benefiting from its performance-boosting effects (apparent, as we note below, even among those remaining unempowered).

Thus, our findings suggest that selective empowerment may offer a potential means by which to resolve two empowerment-related dilemmas. The first dilemma – between delegating power and attaining efficient service – may be reconciled in that, according to the selective empowerment framework, one can only be empowered to the degree that one has already performed well. The second dilemma – between the psychological costs and benefits of empowerment to the individual – may be reconciled in that individuals are allowed to determine for themselves the extent to which they wish to be empowered.

Nevertheless, questions remain as to the sustainability of these effects. Notwithstanding the advantages that such a merit system affords for good performers, consistent with Merton's (1968) 'Mathew effect' notion, poor to average performers (who often do not earn a high enough score to take advantage of the plan) may perceive the system as a liability and both unfair and alienating since the differences between stronger and weaker performers may become self-perpetuating system, with high performers increasingly benefiting at the expense of low performers, and the status difference between the two ever-widening (Gabris and Mitchell, 1988). Such perceptions of unfairness could, in theory, potentially reduce the morale and motivation to perform among such individuals (Colquitt, 2004). In addition, in such contexts, the Matthew effect might also impede competent participants, who for some reason got off to a slow start, from ever rising to a level of performance that matches their true level of competence. As a result, such a system might generate a perception of inequity leading potentially to a subsequent performance decline. Nevertheless, the Matthew effect has received only limited empirical support outside of the sociology of science. Moreover, although it was found that merit-based initiatives were somewhat more motivational to higher than lower performers, no such difference was found with regard to average employees (Heneman, 1992). Thus, it may be that here too, the adverse effects of self-perpetuating outcomes may be limited and pose little risk to the generally beneficial performance-related outcomes associated with selective empowerment.

To further examine the possibility that selective empowerment initiatives might prove to have a detrimental impact on the performance of initially poor performers, we conducted a post hoc analysis to examine the extent to which those participants who had the weakest performance level in the initial round (i.e. the 50% of participants who scored below the median performance score on round 1) improved in successive rounds. *T*-tests indicated a significant *increase* from Time 1 to Time 2 in both the qualitative and quantitative parameters ($t_{(30)} = 3.164$, $p < 0.01$ and $t_{(30)} = 4.971$, $p < 0.01$, respectively) for these initially weak performers as well. Moreover, 20 percent of those identified as 'weak' at the end of round 1 emerged as strong at the end of round 2 (replacing six of those identified in the earlier round as 'strong'). Interestingly however, the increase in performance between Time 1 and Time 2 among weak performers was not significantly greater in the selective empowerment condition compared with the broad-scale empowerment condition (for service quality: $t_{(30)} = -1.295$, $p > 0.05$; for service productivity: $t_{(30)} = .825$, $p > 0.05$), while it was marginally greater for the strong performers (for service quality: $t_{(30)} = -1.848$, $p < 0.1$; for service productivity: $t_{(30)} = -.1905$, $p < 0.1$). This suggests that the bulk of the positive performance effects of selective over broad-scale empowerment can be attributed primarily to the impact of selective empowerment among *strong* performers.

Limitations

Despite the significant effects reported above, our findings should – for a number of reasons – be taken with caution. First, as noted above, the study was conducted using a controlled, lab-based design. On the one hand, such an approach allowed us to address the bias- and causality-related questions left open by earlier, cross-sectional field studies examining the link between socio-structural and psychological forms of empowerment. Indeed, because such a design allows the researcher to objectively control which subjects receive a particular level of the independent variable at a particular time (Colquitt, 2008), it offers a robust means by which to address issues of causal inference (Cook and Campbell, 1979) and method bias (Dipboye and Flanagan, 1979). On the other hand, such an approach raises the possibility of limited external validity. Several factors likely to promote psychological realism were applied in our study, including placing participants in a situation that closely modeled systems in place in real customer contact service organizations, using vivid and engrossing manipulations and tasks, creating real stakes by using monetary reward contingencies (Colquitt, 2008), and using a sample comprising individuals similar in age and background to those typically employed in such jobs, namely university undergraduates in their final year of studies (e.g. Barron, 2007). Still, the relatively short duration of the experiment greatly limits our ability to extend our findings to actual field-settings where the longer-term implications of the empowerment frameworks that we tested may be very different.

Second, it should be noted that we manipulated empowerment strictly in terms of participants' ability to influence how customer 'calls' (emails) were routed (i.e. by allowing empowered participants to choose the type of customer and hence, tasks, assigned to them). While empowerment might have been operationalized differently, we believe that our manipulation reflects an important approach to employee empowerment for many service organizations. Email (or call-) routing not only dictates the type and complexity

of requests to be handled but also the time and effort that agents must invest in order to perform their job.

A third limitation stems from the single form of interaction used in the simulation, namely written emails (a mode of customer contact that has increased considerably during the last decade; de Ruyter et al., 2001). Service firms often use other forms of customer interaction, such as face-to-face and telephone-based interaction, and it is possible that we might have uncovered different empowerment effects had we simulated these other forms of customer interactions in our experiment.

Finally, although we attempted to control for the confounding effects of personality, no attempt was made to examine the possible conditioning effects that personality might have on the relationships examined. We suggest that this issue be addressed in the future, with researchers examining the extent to which power-related dispositions (e.g. growth needs) and other individual differences might condition the individual response to merit-based empowerment initiatives.

Conclusions

Despite these limitations, our findings extend the findings of earlier field studies integrating structural and psychological empowerment approaches. They do so first by confirming the causal assumptions underlying these models (i.e. that structural empowerment serves as an antecedent of psychological empowerment and not vice versa), and second by demonstrating that while the performance and well-being effects of more conventional empowerment initiatives (devolving to individuals the authority to determine *how* to execute job tasks, or in what order) also apply to those initiatives devolving to individuals the authority to determine *which* task to execute, the mechanisms underlying these effects may be somewhat different. Additionally, our findings highlight the need to recognize the potential organization-wide implications of structural empowerment and to develop a deeper understanding of the links between structural empowerment and operational efficiency. In the context of this linkage, our findings confirm and extend the conclusions reached by Quinn and Spreitzer (1997), namely that it may be less than ideal to implement empowerment uniformly across and even within different organizational settings. More specifically, our findings suggest that, at least in service-oriented organizations, a more selective approach to structural empowerment may allow managers to enhance individual task performance without sacrificing either operational efficiency or individual well-being.

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1 Available from Peter Bamberger upon request.

References

Ahearne M, Mathieu J, and Rapp A (2005) To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology* 90: 945–55.

Aksin O, Armony M, and Mehrotra V (2007) The modern call-center: A multi-disciplinary perspective on operations management research. *Production and Operations Management* 16: 665–88.

Bamberger P, Meshoulam I (2000) *Human Resource Strategy: Formulation, Implementation, and Impact.* Thousand Oaks, CA: SAGE.

Bandura A (1986) The explanatory and predictive scope of self-efficacy theory. *Journal of Clinical Social Psychology* 4: 359–73.

Bandura A (2001) Social cognitive theory: An agentic perspective. *Annual Review of Psychology* 52: 1–26.

Barley S, Kunda G (1992) Design and devotion: Surges of rational and normative ideologies of control in managerial discourse. *Administrative Science Quarterly* 37: 363–99.

Baron RM, Kenny DA (1986) The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical consideration. *Journal of Personality and Social Psychology* 57: 1173–82.

Barron P (2007) Hospitality and tourism students' part-time employment: Patterns, benefits and recognition. *Journal of Hospitality, Leisure, Sport and Tourism Education* 6: 40–54.

Batt R (2001) Explaining wage inequality in telecommunication services: Customer segmentation, human resources practices, and union decline. *Industrial and Labor Relations Review* 54: 425–49.

Batt R, Moynihan L (2002) The viability of alternative call center production models. *Human Resources Management Journal* 12: 14–34.

Becker BE, Huseilid MA (1998) High performance work systems and firm performance. *Research in Personnel and Human Resources Management* 16: 53–101.

Beehr TA, Walsh JT, and Taber TD (1976) Relationship of stress to individually and organizationally valued states: Higher order needs as a moderator. *Journal of Applied Psychology* 61: 41–7.

Bell GD (1966) Predictability of work demands and professionalization as determinants of worker's discretion. *Academy of Management Journal* 9: 20–8.

Botti S, Iyengar SS (2004) The psychological pleasure and pain of choosing: When people prefer choosing at the cost of subsequent outcome satisfaction. *Journal of Personality and Social Psychology* 87: 312–26.

Bowen DE, Lawler EE (1992) The empowerment of service workers: What, why, how and when. *Sloan Management Review* 33: 31–9.

Bowen DE, Lawler EE (1995) Empowering service employees. *Sloan Management Review* 36: 73–84.

Bullock RJ, Lawler EE (1984) Gainsharing: A few questions, and fewer answers. *Human Resource Management* 23: 23–40.

Caplan R (1971) *Organizational Stress and Individual Strain*. Ann Arbor: University of Michigan.

Chebat JC, Kollias P (2000) The impact of empowerment on customer contact employees' role in service organizations. *Journal of Service Research* 3: 66–81.

Chen G, Gully SM, and Eden D (2001) Validation of a new general self-efficacy scale. *Organizational Research Methods* 4: 62–83.

Chen G, Kirkman BL, Kanfer R, Allen D, and Rosen B (2007) A multilevel study of leadership, empowerment, and performance in teams. *Journal of Applied Psychology* 92: 331–46.

Chesney MA, Black GW, Chadwick JH, and Rosenman RH (1981) Psychological correlates of the Type A behavior pattern. *Journal of Behavioral Medicine* 4: 217–29.

Colquitt JA (2004) Does the justice of the one interact with the justice of the many? Reactions to procedural justice in teams. *Journal of Applied Psychology* 89: 633–46.

Colquitt JA (2008) From the editors: Publishing laboratory research in AMJ – A question of when not if. *Academy of Management Journal* 51: 616–20.

Conger JA, Kanungo RN (1988) The empowerment process: Integrating theory and practice. *Academy of Management Review* 13: 471–82.

Cook TD, Campbell DT (1979) *Quasi-experimentation: Design and Analysis Issues for Field Settings*. Boston, MA: Houghton-Mifflin.

Dipboye RL, Flanagan MM (1979) Research settings in industrial and organizational psychology. *American Psychologist* 34: 141–50.

Dover K (1999) Avoiding empowerment traps. *Management Review* 88: 51–5.

Earley PC, Lind EA (1987) Procedural justice and participation in task selection: The role of control in mediating justice judgments. *Journal of Personality and Social Psychology* 52: 1148–60.

Edwards JR (1991) Person-job fit: A conceptual integration, literature review, and methodological critique. *International Review of Industrial and Organizational Psychology* 6: 283–357.

Edwards P, Geary J, and Sisson K (2002) New forms of work organization in the workplace: Transformative, exploitative, or limited and controlled. In: Murray G, Bélanger J, Giles A and Lapointe P (eds) *Work and Employment Relations in the High-performance Workplace*. London: Continuum, 72–119.

Edwards R (1979) *Contested Terrain*. New York: Basic Books.

Eisenhardt KM (1989) Agency theory: An assessment and review. *Academy of Management Review* 14: 57–74.

Eylon D (1998) Understanding empowerment and resolving its paradox: Lessons from Mary Parker Follett. *Journal of Management History* 4: 16–28.

Eylon D, Bamberger P (2000) Empowerment cognitions and empowerment acts: Recognizing the importance of gender. *Group & Organization Management* 25: 354–72.

Forrester R (2000) Empowerment: Rejuvenating a potent idea. *Academy of Management Executive* 14: 67–80.

Frenkel S, Tam M, Korczynski M, and Shire K (1998) Beyond bureaucracy? Work organization in call centers. *International Journal of Human Resource Management* 9: 957–79.

Friedman M, Rosenman RH (1959) Association of specific overt behavior pattern with blood and cardiovascular findings. *The Journal of the American Medical Association* 169: 1286–96.

Gabris GT, Mitchell K (1988) The impact of merit raise scores on employee attitudes: The Matthew effect of performance appraisal public personnel management. *Public Personnel Management* 17: 369–86.

Gans N, Koole G, and Mandelbaum A (2003) Telephone call centers: Tutorial, review, and research prospects. *Manufacturing & Service Operation Management* 5: 79–141.

Gist ME, Mitchell TR (1992) Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review* 17: 183–211.

Glew DJ, Griffin RW, and Van Fleet DD (1995) Participation in organizations: A preview of the issues and proposed framework for future analysis. *Journal of Management* 21: 395–421.

Greenberg J (1987) The college sophomore as guinea pig: Setting the record straight. *Academy of Management Review* 12: 157–9.

Hackman JR, Oldham GR (1980) *Work Redesign*. Reading, MA: Addison-Wesley.
Hawkins K (1992) *The Uses of Discretion*. New York: Oxford University Press.
Heneman RL (1992) *Merit Pay: Linking Pay Increases to Performance Ratings*. Reading, MA: Addison-Wesley.
Hobfoll SE (1989) Conservation of resources: A new attempt and conceptualizing stress. *American Psychologist* 44: 513–24.
Hollander EP (1958) Conformity, status, and idiosyncrasy credit. *Psychological Review* 65: 117–27.
Houlihan M (2002) Tensions and variations in call center management strategies. *Human Resource Management Journal* 12: 67–85.
Karasek RA (1979) Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly* 24: 285–308.
Kelly J (1992) Does job re-design theory explain job re-design outcomes? *Human Relations* 45: 753–74.
Kinnie N, Hutchinson S, and Purcell J (2000) Fun and surveillance: The paradox of high commitment management in call centers. *International Journal of Human Resource Management* 11: 967–85.
Kirkman BL, Rosen B (1999) Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal* 42: 58–74.
Kristof AL (1996) Person-organization fit: An integrative review of its conceptualization, measurements, and implications. *Personnel Psychology* 49: 1–49.
Kunda G (1992) *Engineering Culture. Control and Commitment in a High-tech Corporation*. Philadelphia, PA: Temple University Press.
Laschinger HKS, Finegan J, Shamian J, and Wilk P (2001) Impact of structural and psychological empowerment on job strain in nursing work settings: Expanding Kanter's model. *Journal of Nursing Administration* 31: 260–72
Leach DJ, Wall TD, and Jackson PR (2003) The effect of empowerment on job knowledge: An empirical test involving operators of complex technology. *Journal of Occupational and Organizational Psychology* 76: 27–52.
Lee D, Wolpin KI (2006) Intersectoral labor mobility and the growth of the service sector. *Econometrica* 74: 1–46.
Lepak DP, Snell SA (1999) The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review* 24: 31–48.
Locke EA (1986) Generalizing from laboratory to field: Ecological validity or abstraction of essential elements. In: Locke EA (ed.) *Generalizing from Laboratory to Field Settings*. Lexington, MA: Lexington Books, 3–9.
Maslach C, Jackson SE (1981) The measurement of experienced burnout. *Journal of Occupational Behavior* 2: 99–113.
Merton, R.K. (1968) The Matthew effect in science. *Science* 159: 56–63.
Milgrom P, Roberts J (1992) *Economics, Organization and Management*. Englewood Cliffs, NJ: Prentice Hall.
Mills PK, Ungson GR (2003) Reassessing the limits of structural empowerment: Organizational constitution and trust as controls. *Academy of Management Review* 28: 143–53.
Moss SE, Lawrence KG (1997) The effects of priming on the self-reporting of perceived stressors and strains. *Journal of Organizational Behavior* 18: 393–403.
Nickels EL (2007) A note on the status of discretion in police research. *Journal of Criminal Justice* 35: 570–8.

Parasuraman A, Zeithaml VA, and Berry LL (1985) A conceptual model of service quality and its implications for future research. *Journal of Marketing* 49: 41–50.

Quinn RE, Spreitzer GM (1997) Seven questions every leader should consider. *Organizational Dynamics* 26: 37–47.

Raub S, Robert C (2007) Empowerment and organizational citizenship: Moderation by culture in a multi-national sample. *Academy of Management Proceedings* 1–6.

Scandura TA, Williams EA (2000) Research methodology in management: Current practices, trends and implications for future research. *Academy of Management Journal* 43: 1248–64.

Scott SG, Bruce RA (1994) Determinants of innovative behavior: A path model of individual innovation in the work place. *Academy of Management Journal* 37: 580–628.

Seibert SE, Silver SR, and Randolph WA (2004) Taking empowerment to the next level: A multiple-level model of empowerment, performance, and satisfaction. *Academy of Management Journal* 47: 332–49.

Sisselman ME, Whitt W (2007) Value-based routing and preference-based routing in customer contact centers. *Production and Operation Management* 16: 277–91.

Spreitzer GM (1995) Psychological empowerment in the workplace: Dimensions, measurement and validation. *Academy of Management Journal* 38: 1442–65.

Spreitzer GM (1996) Social structural characteristics of psychological empowerment. *Academy of Management Journal* 39: 483–504.

Spreitzer GM (2007) Taking stock: A review of more than twenty years of research on empowerment at work. In: Barling J and Cooper C (eds) *The Handbook of Organizational Behavior*. Thousand Oaks, CA: SAGE, 54–72.

Spreitzer GM, Kizilos MA, and Nason SW (1997) A dimensional analysis of the relationship between psychological empowerment and effectiveness, satisfaction and strain. *Journal of Management* 23: 679–704.

Stajkovic AD, Luthans F (1998) Self-efficacy and work related performance: A meta-analysis. *Psychology Bulletin* 124: 240–61.

Thomas KW, Velthouse BA (1990) Cognitive elements of empowerment: An interpretive model of intrinsic task motivation. *Academy of Management Review* 15: 666–81.

Tuten TL, Neidermeyer PE (2004) Performance, satisfaction and turnover in call center: The effects of stress and optimism. *Journal of Business Research* 57: 26–34.

Van Yperen NW, 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: 339–48.

Wall TD, Cordery JL, and Clegg CW (2002) Empowerment, performance and operational uncertainty: A theoretical integration. *Applied Psychology: An International Review* 51: 146–69.

Wilkinson A (1998) Empowerment: Theory and practice. *Personnel Review* 27: 40–56.

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