Managing to Overload?

WORK OVERLOAD AND PERFORMANCE APPRAISAL PROCESSES

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Performance appraisals are traditionally seen as tools that can promote employee productivity. This article examines whether performance appraisals stimulate employee efforts beyond levels that employees regard as manageable, as measured by feelings of work overload. Using data from 2,399 employees, the study finds that participation in setting performance objectives, difficult objectives, and higher performance ratings are associated with increased levels of work overload. Trust in the supervisor was associated with lower levels of work overload. These findings suggest that some of the features associated with a well-designed appraisal system may generate adverse outcomes for employees and, subsequently, for their organizations.

Keywords: performance appraisal; work overload; employee reactions

Many organizations are now aware of the role employees can play as a source of competitive advantage. As a consequence, organizations implement human resource management (HRM) policies and practices that seek to promote employee productivity and efficiency. This article focuses on a particular HRM practice, namely performance appraisal systems. A performance appraisal system is typically described as a tool of organizations to motivate their employees to improve performance and productivity (Cardy

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& Dobbins, 1994; Murphy & Cleveland, 1991; Noe, Hollenbeck, Gerhart, & Wright, 1994). There is some evidence to suggest that performance appraisals do result in increases in employee performance and productivity (Rodgers & Hunter, 1991; Schay, 1988; Taylor & Pierce, 1999). However, there is also evidence of employees feeling uncomfortable with the increase in pressures from work, a phenomenon labeled as work intensification (Green, 2001).

Although there are many sources of pressure on employees, this article focuses on the relationships among performance appraisal and employee reports of work intensification, as indicated by perceptions of work overload. The study recognizes the potential impact of some of the other sources of pressure on employees by including a range of situational and demographic variables as controls. Understanding the role of performance appraisal on perceptions of work overload is important as features, especially the greater emphasis on individualism in evaluating employee contributions, have been nominated as a source of work intensification (Newton & Findlay, 1996, p. 52). Work overload has been defined as the extent to which the "job performance required in a job is excessive or overload due to performance required on a job" (Iverson & Maguire, 2000, p. 814). Work overload is a chief factor in studies of stress (DeFrank & Ivancevich 1998; Sparks & Cooper, 1999; Taylor, Repetti, & Seeman, 1997, p. 434).

According to Taylor, Repetti, and Seeman (1997), workers who feel required to work too long and too hard at too many tasks report more stress, practice poorer health habits, and report more health complaints than do workers not suffering from overload. Michie and Williams (2003) reported that work overload is associated with psychological ill health among both doctors and nurses. For organizations, work overload has been shown to have a significant negative impact on job commitment among public sector managers (Stevens, Beyer, & Trice, 1978), on job satisfaction (Iverson & Maguire, 2000), and on employee perceptions of an innovative organizational culture (Chandler, Keller, & Lyon, 2000). Work overload has a significant positive effect on voluntary turnover (Mueller, Boyer, Price, & Iverson, 1994). DeFrank and Ivancevich (1998) note the importance of eliminating unnecessary sources of work overload. The design and implementation of performance appraisal systems are within the control of the organization, therefore providing them with an opportunity to operate the system in a way that maximizes the benefits and minimizes the costs.

In the next section, we review the literature and present a number of hypotheses regarding relationships among work overload and aspects of a performance appraisal system. This is followed by a discussion of the data

set, the methods of analysis, results, and some concluding observations about the implications of the research for the study and practice of performance appraisals.

PERFORMANCE APPRAISAL AND WORK OVERLOAD

There is a growing body of research that demonstrates that employees are feeling more stressed at work (Taylor et al., 1997). The 1995 Australian Workplace Industrial Relations Survey (Morehead, Steele, Alexander, Stephen, & Duffin, 1997) reported that 58.5% of employees felt that the "effort you have to put into your job" had increased over the previous 12 months, whereas 45.8% believed that the pace of their work had increased over the previous 12 months. More recently, a study of almost 7,000 union members reported increases in the pace of work (59% of respondents), the amount of work to be done (68% of respondents), and the amount of stress in the job (63% of respondents) over the previous 12 months (Australian Council of Trade Unions, 1999).

Associated with the rising levels of stress has been an increase in the use of performance appraisal systems (Millward, Bryson, & Forth, 2000; Morehead et al., 1997). Furthermore, evidence is emerging that suggests that these two developments are linked. Green (2001, p. 69) has shown that there has been an increase in work pressures on employees from "reports and appraisals" between 1986 and 1997. Case studies of mining industry employees (Iverson & Maguire, 2000) and medical scientists (Weekes, Peterson, & Stanton, 2001) further demonstrate that performance appraisal has been associated with increasing the workload of employees. This article examines the impact of particular features of a performance appraisal system on employee reports of work overload.

Storey and Sisson (1993) have suggested that performance appraisal systems typically involve three stages: objective setting, feedback, and evaluation. The first stage of an appraisal system (objective setting) is about providing guidance to the employee on how to apply their work efforts for the benefit of the organization. The second stage (feedback) is about ensuring employees work toward the achievement of their objectives through a process of regular communication with their supervisor. The final stage (evaluation) involves the supervisor making an assessment of the employees' performance over the entire evaluation cycle, usually in the form of a numerical rating. The rating can then be translated into pay adjustments. The following hypotheses identify relationships among each of these three stages and the level of work overload.

STAGE 1: SETTING PERFORMANCE OBJECTIVES

The measures of performance are fundamental to a system of performance appraisal and are established in the first stage of the system. The rationale for this process derives from goal setting theory (Locke & Latham, 1990). Goals are motivational because they are "arousal producing" (Taylor & Pierce, 1999, p. 424). Goals, especially challenging goals, enhance performance as they encourage employees to try harder and provide pointers for the direction of work efforts (Brown & Latham, 2000; Heneman, 1992; Locke, Shaw, Saari, & Latham, 1981; Lowery, Petty, & Thompson, 1996). There is a sizeable body of research that has demonstrated a positive relationship between goal setting and employee performance (Brown & Latham, 2000) and employee reactions to performance appraisal (Zuber & Behson, 1998). The nature of the goals is important. Milkovich and Newman (2002) point out that performance goals should be specific, challenging, and achievable. Specific, difficult goals lead to higher performance than do either setting no goals or urging employees to "do their best" (Brown & Latham, 2000).

Performance goals or objectives can be a source of work overload pressure. The application of performance objectives that are excessive derives from at least three sources. First, supervisors may impose objectives on their subordinates without regard to the complexities of the job or the span of control of the employees (Lewis, 1998). This can occur under performance appraisal systems in which the objectives set for the senior management in the organization are intended to cascade down through all levels of the organization. In these situations, supervisors run the risk of shifting their performance objectives onto their subordinates without making adjustments for the skills and responsibilities of that employee. Second, employees may feel overloaded with work as a consequence of an excessive number of performance objectives. Too many performance objectives can also result in conflict among those objectives (Lewis, 1998). Employees may feel overwhelmed as they seek to satisfy all these performance objectives within a single evaluation cycle. And the individualistic nature of performance appraisal can undermine cooperation among employees, thereby restricting access to social support in the workplace to understand and share the pressures of work (Marsden & French, 1998). Third, as noted earlier, the purpose of performance objectives is to set specific and challenging goals for employees. This can also be seen as organizations setting objectives in excess of those that an employee would otherwise adopt (Locke et al., 1981). Performance objectives that are always challenging effectively means that the organization is seeking continuous improvements in performance irrespective of the circumstances in which the work is undertaken (Lewis, 1998).

In many jobs, there are limits of both a physical and technological nature that constrain the extent to which ongoing increases in performance are feasible. In these circumstances, a requirement to improve over last year's performance can be a source of work overload pressure on employees. We therefore hypothesize:

Hypothesis 1: Employees with difficult performance objectives will report a higher level of work overload than will employees with less difficult objectives.

Participation in the setting of performance objectives is often seen to be the most important aspect of the performance appraisal process. Furthermore, the opportunity to express an opinion is important, regardless of its actual impact, as it satisfies the desire to have one's opinions considered (Korsgaard & Roberson, 1995). Empirical research provides evidence on the organizational value of participation in objective setting. It has been demonstrated that participation is associated with a motivation to improve (Burke & Wilcox, 1969; Nemeroff & Wexley, 1979), a perception of performance appraisal fairness, satisfaction with the performance appraisal process, and an increase in employee acceptance and trust (Korsgaard & Roberson, 1995; Roberts, 1992). A meta-analysis of field studies of participation found that it is positively associated with satisfaction with performance appraisal (session and system), with motivation to improve, and with utility of the appraisal and fairness (Cawley, Keeping, & Levy, 1998). In other words, the "analysis has firmly established that participation in performance appraisal is positively associated with a diverse number of favourable subordinate reactions" (Cawley et al., 1998, p. 624).

Participation in the setting of performance objectives can facilitate the establishment of realistic workload targets. Employees have an opportunity to point out what is feasible for the evaluation cycle given the available resources and other constraints. Alternatively, employees can feel overloaded when objectives are imposed upon them as performance objectives represent measurement, deadlines, and surveillance of the employee (Coates, 1994). Furthermore, particularly difficult objectives increase job demands and lessen the control an employee has over determining the elements of the job, resulting in adverse health outcomes for employees (Perrewe & Ganster, 1989).

There is some research that has demonstrated a link between low involvement and employee reports of stress. Michie and Williams (2003) report high levels of distress among student nurses caused by a low level of involvement in decision making. They also report that employees who have learned to

participate, and hence control their work, have lower stress hormones. The absence of fairness in performance appraisal has been "moderately associated" with employee burnout (Gabris & Ihrke, 2000, p. 44). Furthermore, Taylor et al. (1997, p. 436) have observed that work overload can be reduced when people are given a high degree of control in the work environment, and participation can be regarded as a means of giving employees control in the workplace. The existing research therefore demonstrates that:

> *Hypothesis 2*: Employees with a lower opportunity to participate in the setting of their performance objectives will report a higher level of work overload than will employees who are more able to participate in the setting of their objectives.

STAGE 2: FEEDBACK

Monitoring the progress toward the performance objectives established in Stage 1 occurs during Stage 2 via two-way communication between the employee and his or her supervisor. Typically, performance appraisal schemes require one formal feedback session each evaluation cycle, though regular informal feedback is seen to be more effective (Cardy & Dobbins, 1994). Performance feedback also provides benefits to the organization. Landy, Farr, and Jacobs (1982) note that there is a large body of research that demonstrates that feedback is critical for performance to improve. More recently, Lowery, Petty, and Thompson (1996) have demonstrated that feedback can help in enhancing employee performance and satisfaction. Boswell and Boudreau (2000) report that feedback shows employees how they can improve in the organization, which results in a higher level of commitment to the organization.

For the employee, feedback is important in clearly defining the supervisor's expectations of the employee (Gosselin, Werner, & Halle, 1997) and should mean that the employee is not surprised with the evaluation they receive at the end of the formal appraisal period (Cardy & Dobbins, 1994). Feedback enables employees to become proactive in their own appraisals, potentially bolstering their perceptions of process fairness (Korsgaard & Roberson, 1995). Pearce (1987) has argued that the more subjective the rating criterion the greater the need for feedback to ensure clarity about what the objectives actually mean, whereas Gosselin, Werner, and Halle (1997) have demonstrated that feedback is a resource to the employees and can lead to more positive attitudes toward the performance appraisal review.

Feedback can be seen as consisting of two main elements: two-way communications between the employee and his or her supervisor and the clarity

of performance expectations. Feedback can have the effect of reducing perceptions of work overload. Two-way communications are useful in plotting an employee's progress toward his or her performance objectives and in providing the employee an opportunity to raise issues that are impacting on his or her ability to achieve the performance objectives. This is potentially more important where the supervisor has a large sphere of control (Fletcher, 1993) and minimal knowledge about the day-to-day requirements of the job. The process could therefore result in realistic workload expectations for the performance evaluation cycle. Furthermore, clarifying performance expectations, according to Folger and Konovsky (1989), demonstrates respect for employees by providing advance notice of appraisal criteria rather than surprising the employee after performance completion. Employees are less likely to feel overloaded when they are respected by the organization. Two-way communications also provide on opportunity to clarify the rules of the game: Knowing the rules of the game provides employees with an opportunity to both make choices about how to operate within that system (Mani, 2002) and to work in such a way that maximizes their assessed performance with less need to work excessively. All of this leads to the conclusion that feedback promotes employees' control in the performance appraisal process, which in turn has been associated with lower levels of work overload (Perrewe & Ganster, 1989; Taylor et al., 1997).

On the other hand, feedback is the stage least likely to be undertaken in organizations (Lewis, 1998). The neglect of this stage may be a deliberate strategy on the part of the employee. Jackman and Strober (2003) point out that some employees avoid seeking feedback for fear that it will result in "impossible demands" (p. 101). Information and clarity of expectations will ensure employees realize the full extent of their supervisors' performance expectations. This fear of feedback is partly based on a view that supervisors focus on the negatives in performance, a product of scheme design that requires supervisors to identify improvements. This can lead to feelings of work overload. Employees will always regard themselves as working at capacity (as most employees see themselves as above average performers; Meyer, 1980), and so they will see the new issues as additional work requirements. This is particularly the case when the performance objectives are numerical as the suggestions for changes are likely to involve doing more (Coens & Jenkins, 2000).

As feedback is traditionally considered to be essential for an effective performance appraisal, and as there is a sizeable body of empirical research to support this view, it is appropriate to offer the following hypotheses:

Hypothesis 3: Employees who have a low level of two-way communication with their supervisor will report a higher level of work overload than will employees who have a high level of two-way communication.

Hypothesis 4: Employees who have a low level of clarity will report higher levels of work overload than will employees with a high level of clarity.

STAGE 3: EVALUATING PERFORMANCE

The third stage of a performance appraisal system is the evaluation of an employee's performance. This section examines two aspects of this process: the impact of the performance rating and the trust in the supervisor to make an assessment of the employee's performance.

Organizations rate the performance of their employees to identify and reward good performance, and there is some evidence that employees respond positively to this system of incentives (Heneman, 1992). For employees, the most obvious outcome of an appraisal system is their performance rating score. The rating is a valued outcome as it represents an assessment of the employee's worth to the organization. Also, it can be important in maintaining self-esteem (Folger, 1987). An employee's self-esteem is affected by performance ratings because research has shown that employees usually rate themselves higher than their supervisors do (Meyer, 1980; Meyer & Walker, 1961; Mount, 1984; Thorton, 1980), and there is less variability in self-raters' assessments than in the assessments of peers and supervisors (Solomonson & Lance, 1997).

The performance rating is also central to a range of HRM outcomes (including pay raises, promotions, and dismissals), which can contribute to employee feelings of work overload. Employees attracted to the symbolic and practical benefits that flow from good ratings may work to the point of feeling overloaded. The incentive to work harder is compounded by the ambiguities of the performance assessment process. Given the difficulty in making meaningful distinctions in performance (Heneman, 1992; Wiese & Buckley, 1998), to generate a "normal distribution" of ratings (Campbell, Campbell, & Chia, 1998, p. 134), supervisors may apply internal or implicit criteria in determining their performance rating (Murphy & Cleveland, 1991). Internal or implicit values are particular to the individual rater who is judging another's performance. This can include reference to the hours of work (Rubery, 1995) and the quantity of work (Coens & Jenkins, 2000). Those employees who have worked the longest hours or who have produced the largest quantity of output are more likely to receive the higher performance ratings, which has also been seen as an indicator of work intensification (Green, 2001).

Not only is the pursuit of a higher rating associated with feelings of work overload, but low performance ratings can also be associated with these feelings. Most employees see themselves as above average performers and may well fear the consequences of a low rating (Boswell & Boudreau, 2000). Nelson and Burke (2000) report that being undervalued is a source of stress for employees. Therefore, we hypothesize:

Hypothesis 5: Employees with a low supervisory rating of performance will report a higher level of work overload than will employees with a high supervisory rating of performance.

Trust in an appraisal context refers to the extent to which employees believe that fair and accurate appraisals will be made by the supervisor. Trust in the supervisor is especially important in subjective systems of performance appraisal (Kleiman, Biderman, & Faley, 1987; Lawler, 1981) and in systems in which the appraisals are used for promotions and administrative decisions (Lawler, 1971). Trust is important as it promotes employee acceptance of the appraisal system (Gabris & Ihrke, 2000), whereas the absence of trust reduces the effectiveness of the system (Lawler, 1971). Furthermore, Goris, Vaught, and Pettit (2003) have reported that trust in supervisors is positively and significantly associated with performance.

The level of trust in the supervisor can have a bearing on an employee's assessment of work overload and, subsequently, on stress (Vermunt & Steensma, 2001). A performance appraisal system allocates sizeable responsibilities to the supervisor. The supervisor's decisions can have an impact on pay, promotion, and dismissal. As Vermunt (2002) notes, employees who cede power to an authority feel uneasy and uncertain in their relationship with the authority, and jobs perceived to have a low level of control lead to psychological anxiety (Perrewe & Ganster, 1989) and stress. So, employees "will look for signs indicating whether the authority can be trusted" (Vermunt & Steensma, 2001, p. 36). A way in which an employee can assess his or her supervisor is in the fairness of allocation decisions, which can include the allocation of workloads and the rating of performance. In other words, it is the supervisor who plays a pivotal role in the setting of an employee's performance objectives, and trust in the supervisor is important in ensuring an employee regards the workload associated with the objectives as realistic and achievable.

Trust is also important so that employees can feel confident that their efforts will result in some benefit to themselves (Siegall & Worth, 2001). However, in subjectively based systems of performance appraisal, there is

scope for the application of both external and internal standards (Murphy & Cleveland, 1991). As Cardy and Dobbins (1994) have noted, raters are effectively human testing devices. Organizations require them to measure relevant characteristics and to be similarly calibrated. There is, however, no evidence that this is always the case, and the variability in the way in which supervisors perform this function is a source of concern to employees. The vast literature on rater errors demonstrates that employee concerns with the calibration of their supervisors is often well founded (Heneman, 1992). An alternative interpretation is that employees attribute these unfavorable outcomes to their supervisor to maintain their own self-esteem (Vermunt & Steensma, 2001). If a supervisor allocates work or evaluates performance in a way that is regarded as unjust, the employee will draw the conclusion that the supervisor has a negative attitude toward him or her, resulting in a low level of trust in the supervisor. Furthermore, as Taylor et al. (1997) have pointed out, inadequate career development can be a source of ill health: "People who feel their ambitions are thwarted are more likely to report stress, to seek help for psychological distress and show higher rates of illness" (p. 435). Trust can overcome adverse reactions to unfavorable decisions (Brockner, Siegel, Daley, Tyler, & Martin, 1997).

Trust in the supervisor will ensure that the employee feels the performance expectations are realistic given the circumstances in which they operate. The final hypothesis, therefore, is:

Hypothesis 6: Employees who have a low level of trust in their supervisor will report higher levels of work overload than will employees who have a higher level of trust in their supervisor.

METHOD AND DATA

PARTICIPANTS AND CONTEXT

The study is based on the results of a mail survey of 6,957 employees of a large Australian public-sector research organization, "PSR." The confidential survey, conducted from December 1998 to March 1999, was sent to all employees via internal post to their place of employment. The surveys were returned directly to the researchers. The study was timed to coincide with a joint union-management review of the pay and salary classification system operating at PSR. Completed questionnaires were returned by 3,335 employees, representing an overall response rate of 47.9%. After accounting for missing data, the effective sample size is 2,399.

In constructing the mailing lists for the survey, PSR had supplied details on the demographic characteristics of the total workforce. Comparisons between the sample and the population, on the basis of gender and geographic location, provide evidence of a representative sample.

Employees (both union and nonunion) are covered by an industrial agreement that provides for a nine-level salary system. Each pay grade has a defined pay range (on average, plus or minus 12% from the midpoint) and a number of increments of predetermined size. Level-1, -2, -3, and -4 employees are typically engaged in clerical and research support roles; Level-5 and -6 employees are research scientists, and Level-7, -8, and -9 employees are senior management and corporate employees. Employees are usually appointed at the bottom of their pay level, and progression through the increments is based on a supervisory assessment of performance.

Each year the supervisor and the employee jointly develop performance objectives, which are monitored during the year. At the conclusion of the 12-month evaluation cycle (March 31, irrespective of the start date), the supervisor makes an assessment of the employee based on the agreed objectives using a five-point scale. Ratings are used to determine increments (employees must receive a three or better to move to the next increment), promotions, and to provide career advice to employees. The performance appraisal system at PSR was therefore used for both developmental and evaluative purposes. There is no provision for regression through the increments. Those employees who are at the top of their pay range receive no increments, irrespective of their evaluation. Movements in the overall pay structure are the outcome of negotiations between the union and management.

MEASURES

Table 1 provides the definitions, items, and descriptive statistics for the variables used in the analysis. For all multi-item scales, a reliability analysis was undertaken, and the Cronbach's alphas are also reported in Table 1. In all cases, the reliability coefficients were within the recommended range (Nunnally, 1978). All of the measures used were self-reported and were five-point scales unless otherwise indicated. The correlation matrix is presented in Table 2. In all cases, the correlations are below .80, the level at which multicollinearity may be considered a problem (Studenmund & Cassidy, 1987).

The dependent variable is work overload, a scale developed by Price & Mueller (1981) and subsequently modified by Iverson (1992). The four items are: "My job requires me to work too fast"; "My job leaves me with very little time to get everything done"; "My job requires me to work very

TABLE 1
Variable Definitions and Descriptive Statistics

Label	*Definition*	M	SD
Work overload	Work overload as measured by four items from Iverson (1992); alpha = .81. Five-point scale where 5 = *high level of work overload.*	3.29	0.81
Control variables			
Age	Age in years.	42.30	9.58
Gender	1 = *female*; 0 = *male.*	0.32	0.47
Income	Midpoint approximated from each level of the salary classification system, divided by 100.	55.47	18.39
Naffect	Negative affectivity as measured by three items from Watson et al. (1987); alpha = .86. Five-point scale with 5 = *high negative affectivity.*	2.79	0.89
Dependents	1 = *dependents*; 0 = *no dependents*.	0.64	0.48
Role ambiguity	Role ambiguity as measured by three items from Rizzo, House, and Lirtzman (1970); alpha = .70. Five-point scale with 1 = *high role ambiguity*.	3.67	0.65
Role overload	Role overload as measured by three items from Iverson, Deery, and Erwin (1995); alpha = .62. Five-point scale where 1 = *high role overload.*	3.73	0.61
Coworker	Coworker support as measured by three items from House (1981); alpha = .86. Five-point scale where 5 = *high level of coworker support*.	3.53	0.75
Performance appraisal processes			
Participate	Participation in the setting of objectives as measured by four items from a self-devised scale; alpha = .61. Five-point scale where 5 = *high level of involvement*.	3.60	0.67
Objectives	Three item measures that assess the level of difficulty of performance objectives; alpha = .72. Derived from Lewis (1998). Five-point scale where 5 = *difficult objectives*.	2.42	0.76
Two-way	Communication under performance, planning, and evaluation system as measured by six items from Tang and Sarsfield-Baldwin (1996); alpha = .83. Five-point scale where 5 = *high two-way communication*.	2.49	0.85
Clarity	Clarity about performance, planning, and evaluation system as measured by three items from Tang and Sarsfield-Baldwin (1996); alpha = .86. Five-point scale with 5 = *high clarity.*	2.81	1.21
Trust	Trust in performance, planning, and evaluation system as measured by four items from Tang and Sarsfield-Baldwin (1996); alpha = .90. Five-point scale where 5 = *high level of trust*.	3.63	1.06
Rating	Performance appraisal rating in the previous assessment cycle; 1-5, with 5 as top.	3.61	0.75

NOTE: *N* = 2,399.

TABLE 2
Correlation Matrix[a]

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
Work overload	1.0														
Age	.08**	1.0													
Gender	–.17**	–.21**	1.0												
Income	.33**	.47**	–.38**	1.0											
Naffect	.32**	–.05*	–.02	.02	1.0										
Dependents	.10**	.29**	–.24**	.23**	.01	1.0									
Role ambiguity	–.13**	.06**	.08**	–.02	–.24**	.02	1.0								
Role overload	–.19**	–.01	.06**	.01	–.26**	–.02	.32**	1.0							
Coworker	–.11**	–.02	.05**	.01	–.23**	–.01	.27**	.11**	1.0						
Participate	.04*	.07**	–.06**	.33**	–.15**	.04*	.24**	.18**	.18**	1.0					
Objectives	.24**	–.02	–.08**	–.10**	.26**	.03	–.33**	–.29**	–.24**	–.64**	1.0				
Two-way	–.09**	.11**	.04	–.08**	–.14**	–.01	.34**	.09**	.28**	.19**	–.23**	1.0			
Clarity	–.05*	–.07**	.04	.06**	–.10**	–.01	.22**	.05*	.17**	.19**	–.21**	.35**	1.0		
Trust	–.16**	–.06**	.07**	–.02	–.22**	–.02	.40**	.16**	.41**	.32**	–.40**	.55**	.30**	1.0	
Rating	.07**	–.06**	–.02	.06**	–.07**	–.01	.15**	.08**	.10**	.17**	–.16**	.12**	.09**	.19**	1.0

NOTE: $N = 2,399$.
a. Two-tailed tests.
*Significant at the $p < 5\%$ level; **significant at the $p < 1\%$ level.

hard (physically or mentally)"; and "I often have to work overtime." A score of five on this scale represents a high level of work overload.

There are six independent variables (two for each of the three stages of the performance appraisal process), five demographic variables, and three contextual control variables used in the following analysis. In Stage 1 (objective setting) of the performance appraisal process, participation is a four-item measure that allows an employee to indicate the level of involvement in the objective-setting process. A representative sample item is: "I was able to participate effectively in the setting of objectives." A score of five on this measure represents a highly participative process. Objective is a three-item measure that assesses the extent to which the performance objectives are difficult to achieve. A sample item is: "Too many objectives were set for me this year." It is derived from a study by Lewis (1998), and a score of five on this scale represents difficult performance objectives. In Stage 2, the feedback aspects of the performance appraisal process were measured by two-way communication and clarity. Both of these variables were developed by Tang and Sarsfield-Baldwin (1996). Two-way communication is a six-item scale that measures the level of communication between the employee and the supervisor during a performance evaluation cycle. A sample item is: "How much guidance does your supervisor give you about how to improve your work?" Clarity is a three-item scale that measures the clarity of employees' expectations of the performance appraisal process. A sample item is: "When you took up your current position, how clear was it made to you that the results of your performance evaluations would be tied to certain personnel actions (e.g., pay increases, promotions, etc.)?" A score of five on the two-way communication scale represents a high level of two-way communication, and on the clarity scale, a score of five represents a high level of clarity. In Stage 3, the evaluative aspects of the process were measured by trust and rating. Trust is a four-item scale developed by Tang and Sarsfield-Baldwin (1996) intended to measure the level of employee trust in the supervisor to evaluate an employee's performance. A sample item is: "How competent do you feel your supervisor is to evaluate your job performance?" A score of five on this scale represents a high level of trust in the supervisor. Rating is a five-point scale developed by PSR to rate each employee's performance. A rating of five is the highest possible.

It is important to control for a range of demographic and contextual factors. The variables included are intended to capture the effects of other variables that have been identified as important in understanding work pressures on employees (Taylor et al., 1997). The five demographic factors that are included in the present study are age, gender, dependents, income, and negative affect.

The age of an employee has been found to be important, with younger individuals consistently reporting higher levels of burnout (Russell, Altmaier, & Van Velzen, 1987). In the present study, age is a continuous variable measured in years. Gender was a dichotomous variable in which female was coded 1. The presence of dependents was included as a dichotomous variable whereby 1 is equal to the presence of dependents. Cooke and Rousseau (1984) find that family roles can both induce and reduce the physical symptoms of strain. On one hand, they report that the "threshold separating equilibrium from overload is lower for individuals with children" (p. 258). That is, parents have lower tolerance for high work demands than do nonparents. On the other hand, there is also a positive effect of family roles. Cooke and Rousseau (1984) found that the presence of a spouse and children was related to physical well-being. Income was measured in dollars per year and was intended to capture the impact of job level in PSR. Employees in higher level jobs are likely to experience higher levels of job demands, which have been associated with employee reports of stress (Taylor et al., 1997).

Negative affect was measured using a scale developed by Watson, Pennebaker, and Folger (1987). It consists of three items, and a score of five on this scale represents a high level of negative affectivity. Watson and Clark (1984) have suggested, "High negative affect individuals are more likely to report distress, discomfort and dissatisfaction over time and regardless of the situation, even in the absence of an overt or objective sources of stress" (p. 482). There is some empirical support for this suggestion. Chen and Spector (1991) reported that two measures of negative affect were significantly correlated with workload. Also, high-negative-affect employees are also likely to possess lower levels of self-esteem (Watson and Tellegen, 1985) and to be uncomfortable when their work behaviors are subjected to increased scrutiny. This was demonstrated by Jex and Bliese (1999) who showed that employees with strong self-efficacy are less likely to report psychological and physical strain as a consequence of work overload compared with respondents reporting a low level of self-efficacy.

There are three contextual variables included in the analysis, and they are included as they have a considerable influence on the appraisal process (Giles & Mossholder, 1990). Landy and Farr (1980) designated as contextual factors those that are not explicitly related to the nature of the rater, the ratee, or the rating instrument but that may be considered part of the context in which the rating occurs. The variables included in the present study are role ambiguity, role overload, and coworker support. Role ambiguity and role overload are variables commonly included in studies of workplace stress (Nelson & Burke, 2000; Taylor et al., 1997). Role ambiguity is the degree to which role expectations are unclear (Kahn, Wolfe, Quinn, & Rosenthal,

1964), whereas role overload is the extent to which employees lack the necessary skills to deal with the requirements of the job (Iverson, Deery, & Erwin, 1995). Roberts (1998) found that the appraisal of individuals adversely affected teamwork and cooperation and reduced the value of social networks at work. This is important as Taylor et al. (1997) reported that social support has been extensively studied in the work environment and its effects are generally beneficial.

METHOD OF ANALYSIS

The survey data were analyzed using hierarchical regression (Tabachnick & Fidell, 1989). At the first stage (Model 1), all the controls were entered into the model (age, gender, salary, negative affect, dependents, role ambiguity, role overload, and coworker support). At the second stage (Model 2), the controls plus the Stage 1 performance appraisal variables (participation, objectives) were added to the model. At the third stage (Model 3), all of the controls plus the Stage 1 and 2 performance appraisal variables (two-way and clarity) were run. In the fourth and final stage (Model 4), the controls plus the Stage-1, -2, and -3 variables (trust and rating) were added into the model. The rationale for this approach is that performance appraisal is a cumulative process in that each stage is dependent of what happened in the previous stage, and this needs to be recognized in the data analysis. A likelihood ratio test was used to test whether the explanatory power of the model had significantly improved with the addition of each stage (Tabachnick & Fidell, 1989). The results of these analyses are reported in Table 3.

RESULTS

Table 1 provides an overview of the respondent characteristics. The average age of all respondents was 42 years, and 68% of the respondents were men. The average salary for respondents was just over AUS$55,000 per year. The average level of work overload reported by the employees of PSR (M = 3.29) was higher than in some studies but lower than others. Lower levels were reported by Chandler, Keller, and Lyon (2000) who report a mean of 2.80 in a study of operational level employees, by Iverson and Maguire (2000) who report a mean of 2.95 in a study of miners working in a remote location, and by Iverson and Pullman (2000) who report a mean of 2.99 in a study of hospital workers. Higher levels were reported for hospitality workers (M = 3.25) and for bank employees (M = 3.26; Deery & Iverson, 1996).

TABLE 3
Work Overload Perceptions and Performance Appraisal[a]

	Model 1	*Model 2*	*Model 3*	*Model 4*
Control variables				
Age	–.0077**	–.0070**	–.0072**	–.0065**
Gender	–.0661	–.0317	–.0296	–.0253
Income	.0152*	.0142**	.0143**	.0140**
Negative affect	.2422**	.2128**	.2124**	.2109**
Dependents	.0482	.0373	.0370	.0363
Role ambiguity	–.0068	.0307	.0326	.0348*
Role overload	–.1590**	–.1139**	–.1152**	–.1181**
Coworker	–.0345	–.0114	–.0111	.0012
Performance appraisal processes				
Participate		.2237**	.2242**	.2218**
Objectives		.3326**	.3306**	.3222**
Two-way			.0110	.0319
Clarity			–.0179	–.0158
Trust				–.0539**
Rating				.0951**
Constant	2.8296**	.9411**	.9631**	.7394**
Adjusted R^2	.2283	.2769	.2769	.2857
Change in adjusted R^{2b}		.0486	.0486	.0574
Log likelihood test[b]		158.24**	160.30**	191.48**
Mean VIF	1.23	1.42	1.42	1.45

NOTE: $N = 2,399$.
a. Unstandardized coefficients.
b. All tests use Model 1 as the base in the calculations.
*Significant at the $p < 5\%$ level; **significant at the $p < 1\%$ level.

The first stage of the performance appraisal process was measured by participation in the setting of performance objectives and by the level of difficulty of those objectives. Table 1 provides evidence of a high level of employee involvement in the setting of performance objectives ($M = 3.60$). The first hypothesis was that employee participation in the setting of performance objectives would be associated with lower levels of work overload. The regression results contained in Table 3, however, provide evidence of a positive and significant relationship with the level of work overload. This contrary result may reflect the way that organizations currently use employee participation in the setting of performance objectives, a point taken up in the next section. The respondents indicated that their objectives were not too difficult ($M = 2.42$), but the more difficult the objectives, the

more likely employees were to report feeling overloaded, as shown by the regression results in Table 3. This result is consistent with Hypothesis 2. The controls plus Stage 1 performance appraisal variables (Model 2) generated an R^2 of 27.69%, a statistically significant increase over the controls-only model (Model 1), as demonstrated by the log likelihood test.

The second stage of a performance appraisal process relates to feedback, as demonstrated by the level of two-way communication and by clarity of understanding. The average level of two-way communication was low (M = 2.49). The regression results in Table 3 (Model 3) show that the higher the level of two-way communication, the higher the level of work overload. This was not as hypothesized, though the result is not statistically significant. The other dimension of feedback investigated was that of clarity of understanding. The overall average level of clarity was 2.81 (Table 1). It was hypothesized that higher levels of clarity would be associated with lower levels of work overload. The results in Table 3, although in the direction hypothesized, are not significant. The inclusion of the feedback variables did not add to the explanatory power of the model.

The absence of statistically significant findings is not surprising as interviews with PSR supervisors and employees revealed that Stage 2 (feedback) was the stage least likely to be taken seriously. That is, the supervisors were under the impression that the leadership of PSR placed a lot more importance on setting objectives and on the submission of a performance rating at the end of the evaluation cycle than on the provision of ongoing feedback. This is also consistent with earlier research that demonstrates that supervisors are often uncomfortable about providing feedback (Tziner, Murphy, & Cleveland, 2001).

The level of trust in the supervisor and the supervisor's assessment of performance measured the third stage of the performance appraisal process. The employees of PSR had a high level of trust in their supervisor as demonstrated by a mean of 3.62 in Table 1. It was hypothesized that there would be a negative relationship between the level of trust and work overload. The regression results in Table 3 (Model 4) provide support for this hypothesis. The other dimension investigated was the relationship between the performance rating and the level of work overload. It was hypothesized that there would be a negative relationship, but the regression results in Table 3 provide contrary evidence. Employees with higher ratings were more likely to report a higher level of work overload. These employees have responded to the incentives of the appraisal system and have pursued a high rating, but have ended up feeling overloaded by work. The explanatory power of this model, as measured by the adjusted R^2, is 28.57%, a statistically significant increase over the controls-only model (Model 1) adjusted R^2 of 5.74%.

DISCUSSION AND CONCLUSIONS

The results show that performance appraisal systems are associated with employee perceptions of work overload. The study provides evidence that performance appraisals create adverse outcomes for employees in the form of feelings of work overload, thus challenging the implicit assumption of performance appraisal that an employee can always improve his or her performance. Moreover, particular aspects of a performance appraisal system are associated with feelings of work overload. Participation in the establishment of objectives, the existence of difficult objectives, and the existence of a performance rating are associated with a higher level of work overload, whereas trust in the supervisor reduces feelings of work overload. The results were as hypothesized with the exception of employee participation and the performance rating. These contrary results are particularly notable as they suggest that even good features of an appraisal system can lead to feelings of work overload.

There are two possible interpretations for the result on employee participation in objective setting. The first is that participation may better reflect rhetoric than reality. As Teicher (1992) has noted, involvement can sometimes be "little more than a euphemism for maximizing employee cooperation with decisions already made by management" (p. 447). Or as Levinson (1976) has pointed out, people are often told that they have opportunities to set their own objectives but in reality have a limited range of choices within those established by their supervisor. In this view, participation is a management device in which control is enhanced by creating the impression that control has been devolved to employees.

The second interpretation is that the case for participation is based on a misunderstanding of employee expectations. Newton and Findlay (1996) have asked:

> Do employees really want to take responsibility for improving themselves through their "active" participation in appraisal or rather might they view appraisal as a manipulation which places the burden of "development" on the employee and encourages them to see themselves as a resource which they must polish and refine according to their employer's needs? (p. 43)

For appraisal researchers, the results suggest that future efforts could be usefully directed toward understanding the nature and quality of the participation process. The mere availability of participative mechanisms may not ensure positive outcomes for employees and their organizations. Of particular interest would be research that examines the role of individual

characteristics on the effectiveness of the participative process. For example, the role of gender and personality characteristics (of both the supervisor and the employee) and the context in which the participation is conducted (declining vs. growing organizations) represent useful avenues for future research.

In the present study, higher ratings of performance were associated with higher levels of work overload. This might be seen as quite a reasonable finding as it should be a stretch for employees to achieve a good performance rating, and it demonstrates that the appraisal system is effectively distinguishing between employees who put in a great deal of effort and those who do not. Alternatively, the pursuit of a higher rating has pushed the employees' performances beyond the optimal level of stress. Extensive research has demonstrated a curvilinear relationship between stress and performance (Joure, Leon, Simpson, Holley, & Frye, 1989) in which too low a level of stress and too high a level of stress do not result in the employee performing at his or her best.

There are issues about the sustainability of a strategy that involves the pursuit of ratings that generate suboptimal levels of stress. The good performers may either adopt shortcuts in their work to ensure that they continue to get good ratings in subsequent evaluation cycles or they may be tempted to leave the organization to escape the consequences of feeling overloaded by work. Either outcome could be problematic for the organization as shortcuts may compromise occupational health and safety, may result in less good behavior, or may result in the departure of valued employees. From a research perspective, this suggests that attention needs to be directed toward understanding the employee and organizational consequences of high ratings, which is a departure from the more usual focus on low or lower-than-expected performance ratings.

The context in which the study was conducted may have some bearing on the findings. The present study was conducted in the context of an established appraisal system. Marsden and French (2002) raise the possibility that the age of a system may have an impact on outcomes generated by that system. They suggest that over time organizations are able to refine a performance appraisal system such that employees become accustomed to the system and supervisors become more adept at applying a system equitably. The implication is that, as a system ages, employees are less likely to suffer adverse consequences. Future researchers should therefore compare the levels of work overload reported by employees working under a new system as compared with those working under an established system of performance appraisal.

PSR has a mild system in that the performance rating merely determines whether an employee is able to move to the next increment in their pay scale. It would be appropriate to test the relationship between performance appraisal and work overload in the context of a system where the consequences of the appraisal were of greater importance (i.e., where sizeable pay increases were contingent on the outcome of the appraisal system). Furthermore, this study was based on a large group of primarily white-collar workers in the Australian public sector. Although the issues facing public sector workers appear to be consistent across a number of countries (Wood & Maguire, 1993), it would be appropriate to test the strength of the relationships with other groups of employees such as blue-collar workers who have limited scope to affect their performance outcomes. Being held accountable for outcomes which are outside the scope of an employee to influence, may be associated with higher levels of work overload.

A common concern with cross-sectional studies is that of common method variance. Avolio, Yammarino, and Bass (1991) indicate that common method variance is the "overlap in variance between two variables attributable to the type of measurement instrument used rather than due to a relationship between the underlying constructs" (p. 572). To test for this, a variance inflation test (VIF) was run for each of the models. The results are reported in Table 3. In all cases, the mean VIF is below 1.5, well below the level at which problems can occur (Chatterjee, Hadi, & Price, 2000). This is consistent with other studies that are now reporting that common method variance is a small problem. For example, Keeping and Levy (2000) tested for this problem as part of a larger study of employee reactions to performance appraisal. They reported that common method variance is only a small and insignificant effect.

As Gabris and Ihrke (2000) note, performance appraisal is here to stay regardless of the problems associated with its implementation and operation. It is therefore important that researchers continue to investigate employee reactions to performance and the broader structural and philosophical implications of this tool of HRM.

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