The Role of Work Context in Work Motivation: A Public Sector Application of Goal and Social Cognitive Theories

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ABSTRACT

The present study represents a test of a conceptual model predicting how the organization's work context might influence work motivation. Using the framework provided by goal and social cognitive theories, this model of work motivation assesses whether aspects of the organizational work context, such as greater goal conflict, procedural constraints, and goal ambiguity, may have a detrimental effect on work motivation through their influence on three important antecedents of work motivation: job goal specificity, job difficulty, and self-efficacy. Although the findings of a covariance (LISREL) analysis of state government employee survey data suggested a few minor modifications to this model, the results indicated that the theoretical framework can identify specific leverage points that can increase work motivation and, therefore, productivity in the public sector.

For over two decades, public administration scholars have highlighted a need for an improved understanding of the motivational context in public sector organizations (Balk 1974; Behn 1995; Perry and Porter 1982; Rainey and Steinbauer 1999). Unfortunately, while work motivation is one of the most frequently discussed topics in psychology (Rousseau 1997), it continues to receive only limited attention in public administration research. Admittedly, work motivation is a difficult concept to define or study (Rainey 1993), and no single comprehensive theory of motivation currently exists. Nevertheless, theoretical advances have been made that can assist our efforts in understanding the motivational work context. In particular, there is a growing consensus that any model of work motivation should include the underlying process variables that explain how goals affect work motivation (Kanfer 1992; Katzell and Thompson 1990; Mitchell 1997).

This observation regarding the importance of goals, however, is not new. Twenty years ago, Perry and Porter (1982) suggested that goal theory may be relevant to the public sector motivational setting not only because its reliance on personal significance reinforcement rather than monetary incentives but also because of the key role it plays in many motivational techniques. Although some empirical evidence has since been found to support the applicability of goal theory in public administration (Brewer and Selden 2000; Rodgers and Hunter 1992; Wilk and Redmon 1990), Perry and Porter (1982) cautioned that the implementation of goal setting techniques in public organizations may be hindered by the vague and conflicting nature of government goals.

More recently, it has been suggested that an integration of goal and social cognitive theories may be particularly relevant to understanding the motivational context in public organizations specifically because of how goals and other work context variables may differ across employment sectors. If public sector organizations have conflicting or ambiguous goals and greater procedural constraints, these characteristics may have important implications for employee work motivation because of their potential influence on the job characteristics and attitudes that these theories identify as important antecedents to work motivation.

The present study contributes to our understanding of work motivation in the public sector by testing a conceptual model predicting how the work context might influence work motivation (Wright 2001). In particular, using the framework provided by goal and social cognitive theories, this model of work motivation tests whether characteristics of the employee's work context, such as goal conflict, procedural constraints, and goal ambiguity, have a detrimental effect on work motivation through their influence on important antecedents of work motivation. The model was tested in a structural equation model using data from a self-administered survey of state employees. The resulting empirical support for this conceptual model provides a strong theoretical framework for future research on work motivation that may identify specific leverage points that can improve employee work motivation in the public sector.

THEORETICAL FRAMEWORK

Part of goal theory's attraction to theorists is that it provides a relatively simple motivational explanation for the variation in employee performance that is not due to ability or situation: some employees perform better than others because they have different performance goals (Locke and Latham 1990). According to social cognitive theory, however, it is not the goals themselves but rather the discrepancies created by individuals' comparing how they perform to how they want to perform that motivate behavior (Bandura 1986). The result of this evaluation is a sense of self-approval or self-dissatisfaction that serves to motivate individuals to act in ways that produce a positive self-evaluation or reduce a negative self-evaluation. This integration of goal-setting and social cognitive theories often has been referred to as self-regulation because of the reliance on self-reaction to explain how goals regulate motivational states (Kanfer 1990).

Although goal-performance discrepancies regulate behavior over time, a number of goal-related constructs have been identified by the literature as potentially important to understanding how goals can facilitate motivation. Seven of these goal related constructs and their relationships with work motivation are depicted in figure 1. These influences on work motivation fall into two general types. First are the job characteristics and attitudes that have been found to have an influence on employee work motivation. Variables commonly studied under this category include job goal specificity, job goal difficulty, self-efficacy, and feedback. The second category consists of characteristics of the work context that have important indirect influences on work motivation through their impact on these job characteristics and attitudes. In particular, this model focuses on three work context variables: procedural constraints, organizational goal specificity, and organizational goal conflict. This new model, and its potential implications for the public sector, is discussed below.

Figure 1
Model of Work Motivation
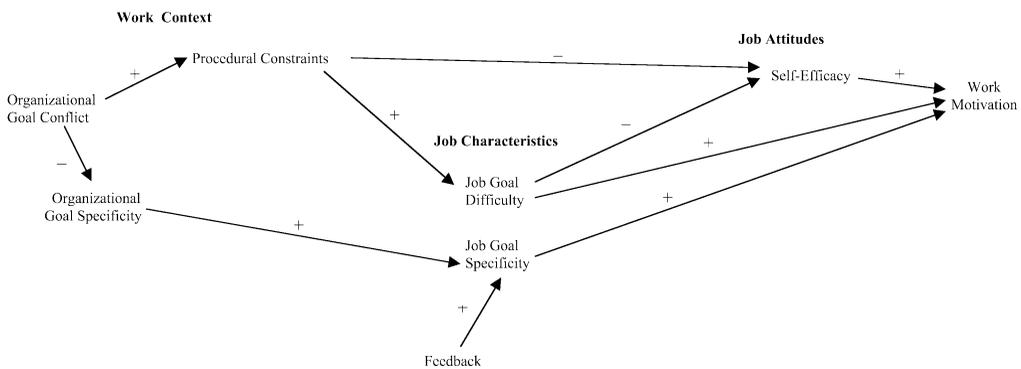
Job Characteristics and Attitudes

The majority of goal-setting research has focused on studying the importance of goal content, particularly goal difficulty and goal specificity (Kanfer 1990). In fact, "Nearly 400 studies have shown that specific, difficult goals lead to better performance" (Locke and Latham 1990, 240). Although studies rarely investigate the effects of goal difficulty and goal specificity separately, in theory there is some difference between them. In general, goal difficulty is expected to be more related to effort and arousal while goal specificity is thought to be more related to the direction of attention and effort (Locke and Latham 1990).

In their review of the research on goal specificity, Steers and Porter (1974) found that setting clear goals on an individual's job generally increases performance for two primary reasons. First, specific goals can serve to focus attention, reducing search behavior by letting the employee know precisely what he or she is expected to do. Second, setting clear goals can focus effort, making it easier for the employee to understand the relationship either between effort and resulting performance or between performance and subsequent rewards. This latter effect requires more than just job goal specificity; it also depends on the presence of performance feedback (Locke and Latham 1990). Such summative and formative evaluations of an individual's work are instrumental to the employee's understanding the effort-performance-reward relationships, providing knowledge of results and clarification of job expectations. Consistent with these studies, two hypotheses were tested in this study:

H_1 Job goal specificity will have a direct, positive effect on work motivation.

H_2 Feedback will have an indirect, positive effect on work motivation through its influence on job goal specificity.

Goal difficulty, however, has two competing effects on work motivation. Job goal difficulty can enhance motivation by producing larger goal-performance discrepancies. Larger gaps between current performance and desired goals require greater effort by the individual to attain the positive self-evaluation that drives behavior (Bandura 1986). Such performance gaps, however, will only drive behavior if employees see the performance goal as achievable and worthy of their effort. Increasing goal difficulty not only increases the goal-performance discrepancy but also affects the individual's judgment of his or her

own "capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura 1986, 391).[1] This confidence in one's abilities, commonly referred to as self-efficacy, influences an individual's likelihood to expend the necessary effort and persist in the face of obstacles (Bandura and Cervone 1983, 1986; Bandura 1988; Earley and Lituchy 1991). Consequently, as goals become more difficult, the goal-performance discrepancy also may be less likely to drive behavior because expending any extra effort would be viewed as increasingly futile. Consistent with these studies, three additional hypotheses were tested in this study:

H$_3$ Job goal difficulty will have a direct, positive effect on work motivation.

H$_4$ Self-efficacy will have a direct, positive effect on work motivation.

H$_5$ Job goal difficulty will have an indirect, negative effect on work motivation through its negative influence on self-efficacy.

Work Context

In addition to job characteristics and attitudes, the public administration literature has identified several aspects of the employee's work context that may influence work motivation. In particular, it is commonly suggested that public organizations are characterized by multiple, conflicting, and ambiguous goals as well as the presence of procedural constraints on employee action (Fottler 1981; Whorton and Worthley 1981; Rainey 1989, 1996; Baldwin and Farley 1991) and that these differences influence employee and organizational performance. Surprisingly little empirical research, however, has investigated the existence of these differences or their potential impact on the effective operation of public organizations (Rainey 1989; Baldwin and Farley 1991; Wright 2001).

Regardless of whether sector differences do exist, it would be misleading to suggest that these are characteristics only found in public sector organizations. Important variation in work context occurs within sectors, and even private sector organizations are not devoid of procedural constraints, organizational goal conflict, and ambiguity. Consequently, although this study did not assess whether public organizations are different from their private sector counterparts, it helps to extend our understanding of the motivational context in organizations by investigating ways in which aspects of the work context might influence work motivation within the theoretical framework provided by goal and social cognitive theories. Although this model may be especially salient to public organizations if sector differences do exist, the presence and potential impact of procedural constraints or organizational goal conflict and ambiguity is important regardless of sector. To that end, each of these work context factors, and its potential role in employee work motivation, is discussed below.

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[1]   There is some evidence to suggest that assigning difficult goals can raise an individual's self-efficacy by signaling the confidence that others have that the individual can perform the assigned task (Salancik 1977; Bandura 1986; Eden 1988). Although task assignments in laboratory settings may signal to experimental participants that a certain level of performance is expected of them, this may be less likely to occur in real life work environments because employees recognize that responsibilities are assigned more as a product of factors other than their personal competence (job descriptions, labor agreements, resource limitations, and so forth).

Organizational Goal Specificity

One work context factor that may have an influence on employee work motivation is organizational goal specificity. In his 1987 study of federal, state, and local government employees in the Atlanta area, Baldwin found that the clarity of organizational goals had a beneficial effect on the work motivation. Although Baldwin found empirical support for this relationship, the process by which organizational goal clarity may impact work motivation was not explicitly described. Under goal theory, however, the specificity of organizational goals might be expected to affect work motivation through its influence on job-level goal specificity. In particular, if the goals of an organization are ambiguous, then the goals held at the job level are also likely to more be ambiguous. Thus the following hypothesis can be tested:

> H_6 Specific organizational goals will have an indirect, positive effect on work motivation through its influence on job-level goal specificity.

Procedural Constraints

In additional to organizational goal specificity, the existence of procedural constraints also may effect employee work motivation. Although Baldwin (1990) found no support for a direct relationship between organizational procedural constraints such as red tape and employee work motivation, the framework provided by goal and social cognitive theories suggests that this relationship may be indirect, moderated by job goal difficulty and self-efficacy. The level of procedural constraints employees experience in the work place, for example, may make job goals seem more difficult to achieve by limiting the strategies, actions, or resources that may be available to the employee. As discussed above, job goal difficulty may simultaneously enhance motivation by requiring that the employee expend greater effort to avoid the dissatisfaction associated with poor performance and weaken motivation by lowering perceptions of potential goal attainment. In addition to this indirect effect on self-efficacy through job goal difficulty, there is some evidence to suggest that procedural constraints will also have a direct effect on self-efficacy. Bandura and Wood (1989) found that managers who believed that they had more control over their own performance environments displayed a stronger sense of self-efficacy and even set more challenging goals when difficult organizational standards eluded them. Employees who believe their organization environments are not easily or quickly changeable will lose faith in their capabilities, making it even more difficult to achieve any performance goals (Wood and Bandura 1989). Thus the following hypotheses can be tested:

> H_{7a} Procedural constraints will have an indirect, positive effect on work motivation through its influence on job-level goal difficulty and its direct influence on work motivation.

> H_{7b} Procedural constraints will have an indirect, negative effect on work motivation through its influence on job-level goal difficulty and its adverse influence on self-efficacy.

> H_8 Procedural constraints will have an indirect, negative effect on work motivation through its influence on self-efficacy.

Organizational Goal Conflict

Perhaps the characteristic of the work context that has been featured most prominently in the public sector literature has been the existence of conflicting organizational goals

(Rainey 1989, 1996). The importance of goal conflict derives from its suggested causal order among the characteristics of the work context. Organizational goal conflict can make organizational performance expectations appear ambiguous as employees may not be certain how to achieve divergent goals or even which goals to achieve. It also may be expected that organizational goal conflict may culminate in greater formal procedural constraints on employee action and compensation (Buchanan 1975; Fottler 1981; Baldwin 1984; Perry and Rainey 1988), as it is often easier to identify procedures to constrain employees from doing anything they should not do than it is to identify and guide what they should do (Whorton and Worthley 1981; Behn 1995). If organizational goal specificity and procedural constraints indirectly affect work motivation through their influence on job characteristics and attitudes (hypotheses 6–8), then organizational goal conflict may influence work motivation through its influence on these two work context variables. In particular, the following two hypotheses can be identified:

H$_9$ Organizational goal conflict will have an indirect, negative effect on work motivation through its influence on procedural constraints.

H$_{10}$ Organizational goal conflict will have an indirect, negative effect on work motivation through its influence on organizational goal specificity.

METHOD

The sample for this study consisted of 385 New York State employees drawn from a two-stage cluster sampling procedure. First, a sample of state agencies was generated. Using the 1999 New York State Workforce Management Plan (New York State Department of Civil Service 1999), eleven of the seventy-two state agencies in New York were selected at random with their probability for inclusion determined by the number of agency employees in January 1999. Of these eleven agencies, five provided a current list or telephone directory. Employee lists from the seven remaining agencies were taken from the most recent New York State Office of General Services (OGS) Telephone Directory. In the second stage, thirty-five employees employed in the state capital were selected at random from each of the eleven agencies.

Study Measures

All participants received a 114-item survey instrument designed to investigate employee perceptions of work context and job characteristics, as well as job attitudes including work motivation. In addition to the measurement of the eight variables relevant to this study, data were collected for demographic and other variables, the analysis for which is beyond the scope of this study. Each of eight study variables was measured using multiple items taken, whenever possible, from previously validated measures. For example, work motivation, defined as the direction, intensity, and persistence of work-related behaviors desired by the organization or its representatives (Mitchell 1997), was measured using a general measure of work motivation first developed and validated by Patchen and his associates (Patchen, Pelz, and Allen 1965; Patchen 1970). This four-item measure asks individuals to rate themselves on how involved they are in their work (direction) and how hard they work (intensity) on a set of five-point response scales. Versions of this scale used

in studies of public sector organizations have had mixed success. While Rainey (1983) found a three-item variant of this measure to be unreliable, Baldwin (1984, 1987, 1990) added an item concerning persistence to his adaptation of Patchen's original four-item scale and achieved an acceptable level of internal reliability (Cronbach's alpha = .68). Capitalizing on the successful application of the modified version of this measure in the public sector, this study measured work motivation using a six-item measure that adapted the five items employed by Baldwin (1984, 1987, 1990). For this study, a sixth item was added to assess the degree of persistence in an employee's work-related behavior ("I am willing to start work early or stay late to finish a job").

Based on Locke and Latham's (1990; Lee et al. 1991) Goal Setting Questionnaire and an instrument developed by Steers (1976), a four-item measure of job goal specificity and a five-item measure of job goal difficulty were developed.[2] Similarly, self-efficacy was measured using four items, three of which were adapted from an instrument of work-related expectancies (Sims, Szilagyi, and McKemey 1976), assessing the probability that effort would lead to good performance.[3] These goal-content and goal-related attitudes were measured indirectly in this study by assessing the specificity, difficulty, or even efficacy related to an employee's job in general rather than to any specific goal. A four-item measure of feedback on the job was measured using part of an instrument developed by Stone (1976). Procedural constraints were measured using five items, three of which were adapted from Buchanan's (1975) Structure Salience Scale which assessed the extent to which public employees feel constrained by organizational rules and practices.[4] Multiple item measures of organizational goal specificity and organizational goal conflict, however, were developed especially for this research.

Items for all eight study variables were measured on either a six-point (coded 1–6) strength of agreement (strongly disagree, generally disagree, disagree a little, agree a little, generally agree, and strongly agree) or a five-point (coded 0–4) frequency of occurrence (almost never/never, rarely, sometimes, often, and almost always/always) scale. To accommodate the differences in response scales, composite scale scores for each measure were computed as the sum of the standardized item scores. A complete list of the items used in each measure is provided in appendix A.

Survey Respondents

Of the 385 questionnaires that initially were mailed, 30 were returned incomplete because the selected participant was no longer employed by the agency. From the reduced sample of

2   Subjective measures of goal difficulty have been found to confound goal difficulty with self-efficacy (Locke and Latham 1990). In an attempt to avoid this problem, two items taken from a previous measure of goal difficulty (Steers 1976) were added to an additional three items that reflect goal challenge.

3   Although most measures of self-efficacy are task specific, a more general measure of self-efficacy based on work-related expectancies was used in this study. Although some consider such a general measure to be inappropriate (Bandura 1986), work-related expectancy measures have been found to correlate with measures of locus of control (Sims et al. 1976) and resemble methods used to assess efficacy expectations in laboratory studies (Klein 1991).

4   It should be noted that work related constraints have been operationalized in a variety of ways including red tape, formalization, and centralization. While there has been considerable variation in the theoretical definitions and operational measures of these constructs (Pandey and Scott 2002), the term *procedural constraints* is used here as a global term recognizing the extent to which employees perceive that their actions are constrained regardless of whether such actions are formally codified (formalization) or entirely detrimental (red tape).

355, 267 usable questionnaires were returned for an overall response rate of 75.2 percent.[5] Response rates by agency ranged from a low of 64.5 percent from the Office of Mental Health to a high of 83.9 percent from the Department of Labor.

Comparisons between the demographics of the sample respondents with characteristics of state employees as reported by 1999 New York State Workforce Management Plan (New York State Department of Civil Service 1999) revealed more similarities than differences. For example, the study sample appeared comparable to the state employee population in terms of gender (51 percent and 48 percent female, respectively), age (the average age of the sample was 47 years while the state average was 45), and length of service to the organization (16 years on average for the sample, while the average organizational tenure for all state employees was nearly 15 years).[6] While the study sample appeared comparable to the population in several ways, it differed in terms of salary grade and ethnicity. Approximately three-quarters of all New York state employees are classified in grades commonly associated with clerical or support positions (salary grade 17 or below). In contrast, employees at a higher organizational level are overrepresented in the study sample, with two-thirds classified in professional, technical, or managerial grades (at or above salary grade 18). The sample and population also diverged with regard to ethnicity. While the majority of state employees (71.8 percent) were reported to be white, the sample was even more dominated by the presence of white employees (89.5 percent). Given the relatively high response rate (75.2 percent) and the limitations of the available sample frame,[7] it seems likely that these differences were characteristic of the sample and not just of the survey respondents.

Univariate Analysis of Measures

Checks of internal reliability for the eight measures intended for use in this study were encouraging. Reliability estimates (Cronbach's coefficient alpha) ranged from 0.68 to 0.85 (table 1). Table 2 shows the univariate statistics for each measure prior to standardization.[8] The potential range of values for each scale varied depending on the number of items and number of response categories per item. Distributions for five of the eight measures were negatively skewed, with respondents on average reporting a relatively high degree of work

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[5]   The survey administration followed procedures that have been found to maximize the survey response rates (Dillman 1978, 1991). First, survey participants were notified of the study in a personally addressed and signed letter. Five days after this introductory letter, each participant received a personalized cover letter, an attractive eight-page questionnaire booklet, and a stamped, self-addressed return envelope. Questionnaires were coded for tracking purposes and nonrespondents received two additional mailings: a postcard follow up sent after ten days and a personalized letter and questionnaire after twenty-one days.

[6]   Statistical tests comparing the age and length of service of the sample with the population suggested that the sample was significantly older and with longer tenure than the population. These differences are no longer significant, however, if adjustments are made to take into account that the data regarding the state workforce were collected more than one year prior to the collection of the sample data.

[7]   The 1998 New York State Office of General Services (OGS) Telephone Directory, used to select a sample for seven of the eleven state agencies, only lists the most frequently called state employees. Employees assigned dedicated phone lines may be more likely to be at the higher levels of the organization.

[8]   Although composite scale scores for each measure used to analyze the measure relations were computed as the sum of the standardized item scores to accommodate the differences in response scale across items, the meaning of such scores is difficult to interpret. For this reason, the sum of the raw item scores was used to describe the sample in terms of the eight study measures.

Table 1
Bivariate Correlations and Reliabilities

	1	2	3	4	5	6	7	8
1. Work motivation	(0.71)							
2. Self-efficacy	0.15[*]	(0.70)						
3. Job goal specificity	0.35[*]	0.42[*]	(0.74)					
4. Job goal difficulty	0.54[*]	−0.29[*]	0.07	(0.85)				
5. Feedback	0.22[*]	0.13[*]	0.43[*]	0.16[*]	(0.78)			
6. Procedural constraints	−0.31[*]	−0.15[*]	−0.42[*]	−0.11	−0.30[*]	(0.68)		
7. Organizational goal conflict	−0.18[*]	−0.27[*]	−0.34[*]	0.00	−0.37[*]	0.49[*]	(0.74)	
8. Organizational goal specificity	0.29[*]	0.19[*]	0.36[*]	0.22[*]	0.45[*]	−0.37[*]	−0.58[*]	(0.73)

Note: Cronbach's alpha in parentheses.
[*]$p < .05$.

motivation, self-efficacy, job goal specificity, job goal difficulty, and organizational goal specificity. As might be expected with self-report measures, responses were the most positive when participants were asked to describe their own behavior (work motivation) or abilities (self-efficacy), possibly due to social desirability bias (Rainey 1993). Perhaps contrary to expectations, respondents perceived only a moderate amount of organization goal conflict, with the mean score just above the scale midpoint. On average, respondents reported relatively lower levels of feedback and procedural constraints, however, with both measures scored slightly below their midpoints. Although all eight measures show a moderate degree of variability, the work motivation measure produced the greatest degree of homogeneity in responses.

Bivariate Relations

Table 1 provides the reliability estimates for each of the eight study measures included in the final analysis, as well as the zero-order correlations between them. Nearly all of the correlations (25 of 28) were statistically significant at $p < .05$. In addition to the interrelatedness of the study measures, the prevalence of significant relationships may be a function of characteristics of the study itself, specifically the sample size and source effects. The sample size used in the study was large enough to be sensitive to small effects (Cohen 1988), finding statistically significant relations where only 1.5 percent of variance is shared. The prevalence of significant correlations between measures may also be a product of mono-method bias. The measures may have been correlated over and above the true variance of the underlying latent variables due to shared systematic or source errors associated with collecting self-report data at a single point in time (Sullivan and Feldman 1979).

Nonetheless, the measures appeared to be relatively distinct. The median correlation among the measures was low (0.29), with over three-quarters of the correlations no larger than 0.37. The largest bivariate correlation, between organizational goal specificity and organizational goal conflict, was 0.58, suggesting that no measure shared greater than one-third of its variance with any other measure. Although the proportion of shared variance between these two measures was 0.33, the estimated ratio of true-score variance to observed score variance (Cronbach's alpha) for each measure was substantially higher, 0.73 and 0.74, respectively.

Table 2
Univariate Statistics

	Potential Scale Range	Midpoint	Mean	Standard Deviation	Observed Minimum Score	Observed Maximum Score
Work motivation	3–30	16.5	23.93	3.74	11	30
Self-efficacy	3–22	12.5	17.65	3.29	7	22
Job goal specificity	3–22	12.5	17.24	3.34	4	22
Job goal difficulty	3–26	14.5	19.81	4.31	3	26
Feedback	2–20	11.0	9.65	4.24	2	20
Procedural constraints	3–26	14.5	13.27	4.31	4	26
Organizational goal conflict	3–22	12.5	12.68	3.94	3	22
Organizational goal specificity	2–16	9.0	11.34	2.92	2	16

MODEL TEST

A covariance structure analysis of these data was conducted using LISREL version 8.30. The hypothesized relationships among the independent variables and between these variables and the dependent variable were tested in a single indicator structural equation model incorporating measurement error (Hayduk 1987). This model was tested using composite scores of the multiple item measures as single indicators of their respective latent variable. To recognize that the relationship between the observed value of each scale and the theoretical construct it is intended to measure is not perfect, the error variance for each measure was set by constraining the values associated with the measure in the theta delta or theta epsilon matrices equal to the variance of the measure multiplied by one minus the reliability (Jöreskog and Sörbom 1992; Hayduk 1987).[9] Thus the path from the latent variable to the measured indicator is estimated to be equal to the square root of the measure's reliability.[10]

The overall model fit of the hypothesized structural model was mixed. Although the t-statistics for path coefficients of nine of the ten hypothesized relationships were statistically significant ($p < .05$), the model fit indices suggested that the theoretical model did not accurately capture the pattern of relationships reflected by the data. None of the six fit indices recommended by Jaccard and Wan (1996) were consistent with a good model fit. The maximum likelihood chi-square ($X^2 (18) = 141.63$, $p < .05$) and the p value test for close fit (0.00) were both statistically significant, inconsistent with good model fit. The root mean square error of approximation (RMSEA) was 0.17 and the standardized root mean square residual (standardized RMR) was 0.16, both greater than the thresholds generally considered necessary for a satisfactory model fit (0.08 and 0.05, respectively). The comparative fit index (CFI) was 0.75, and the goodness-of-fit index (GFI) was 0.88, neither reaching the 0.90 value used to suggest good model fit.

A closer examination of the modification indices and standardized residuals indicated a systematic pattern of points of stress in the model. This information was used to respecify the model, with the paths between latent constructs associated with the largest standardized residuals and modification index added or dropped if the change reflected a theoretically

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9   Error variances associated with the indicators (e) are equal to one minus the indicator's reliability estimate.

10   This path can be interpreted as the factor loading of the observed indicator on the conceptual variable it was intended to measure.

viable relationship, in a process of theory building.[11] The resulting respecified model (figure 2) retained seven of the ten hypothesized relationships from the original model and achieved a better model fit, with five of the six fit indices consistent with good model fit (RMSEA = 0.063, CFit = 0.22, CFI = 0 .97, GFI = 0.97, standardized RMR = 0.043). Of the six tests, only the chi-square test was inconsistent with good model fit (X^2 (16) = 32.06, $p < .01$). This particular fit index, however, is sensitive to sample size, with larger samples inflating the chi square and decreasing the likelihood of achieving a good model fit (James, Mulaik, and Brett 1982).

Consistent with the original model (figure 1), the respecified model found support for the five hypotheses regarding the effects of job characteristics and attitudes on work motivation (hypotheses 1–5). Job goal specificity, job goal difficulty, self-efficacy, and feedback all have important effects on employee work motivation. Similarly, the analysis supported the hypotheses predicting relationships between organization goal conflict and work motivation mediated by organizational goal specificity and procedural constraints (hypotheses 9–10). The three remaining hypotheses received mixed support. Although the resulting model remained generally consistent with the originally hypothesized model, in finding indirect relationships between work motivation and organizational goal specificity and procedural constraints, the exact form these relationships took changed. For example, consistent with hypothesis 6, a causal relationship existed between organizational goal specificity and work motivation that was mediated by job goal specificity. Rather than a direct relationship between organizational goal specificity and job goal specificity as hypothesized, this relationship was found to be mediated by a third variable, feedback. This relationship is not without potential theoretical justification. Difficulty in measuring ambiguous organization objectives can make it more difficult for employees to receive information regarding the impact of their work (Buchanan 1975). Clear knowledge of the organizational goals may allow supervisors and peers to be more able and, therefore, more likely to provide the summative or formative evaluations of an employee's work that help define job and performance expectations.

Similarly, consistent with hypothesis 8, the respecified model found that procedural constraints have an influence on work motivation mediated by self-efficacy. Rather than a direct relationship between procedural constraints and self-efficacy as predicted, this relationship was indirect through an effect on job specificity. Some theoretical support for this revised relationship can also be found. Several scholars have suggested that public employees may perceive their performance objectives as clear because these objectives are defined in terms of conformity to specified means and procedures (Meyer 1982; Rainey 1983). If established organizational policies or procedures hinder or diverge from assigned performance objectives, however, employees may be uncertain as to what performance is desired of them. Consequently, efforts to develop clear performance standards through instituting additional rules may only add to the bureaucratic complexity and confusion (Warwick 1975) and reduce job goal specificity. Additional evidence for the relationship between job goal specificity and self-efficacy can be found in research on role ambiguity

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11 Although model modifications are common in the modeling process (Bollen and Long 1993) and can be legitimate additions to a structural model if they can be assigned a substantive meaning (Kelloway 1996), it is important to recognize that they are empirically driven and may capitalize on chance variations in the data or reflect sample-specific variance. Model modifications, therefore, should be viewed as theory building rather than theory testing and should be validated on an independent sample (James and James 1989).

Figure 2
Respecified Model of Work Motivation. The structural path estimates are reported as standardized regression weights. All path coefficients are statistically significant at $p < .05$.
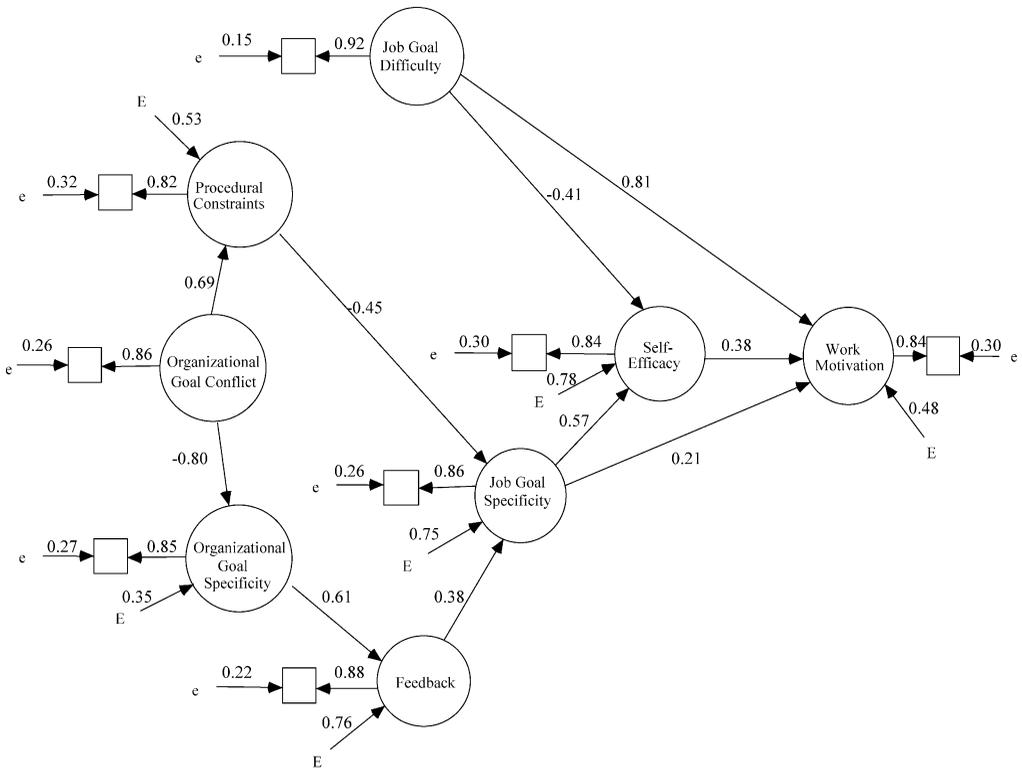
that has linked ambiguity to lower levels of self-confidence (Kahn et al. 1964) and self-efficacy (Hartline and Ferrell 1996).

Unfortunately, one aspect of the respecified model was not so compatible with the original model. Although procedural constraints were predicted to influence motivation by increasing the level of job difficulty experienced by the employee (hypotheses 7a and 7b), the relationship between procedural constraints and job goal difficulty was not found to be statistically significant upon examination of either the covariance model or respective zero-order correlations. Consistent with the common practice of "theory trimming" (Pedhazur 1982), this nonsignificant path was dropped from the respecified model.

IMPLICATIONS FOR MOTIVATING PUBLIC EMPLOYEES

The research presented here not only found that just over half of the variance in work motivation[12] among public employees can be explained by three variables—job goal specificity, job goal difficulty, and self-efficacy—but also that work context variables such as procedural constraints, organizational goal specificity, and organizational goal conflict

12   Coefficients of determination (reduced form R^2) for endogenous variables can be calculated from figure 2 as one minus the error term for the latent variable (E).

may be relevant when attempting to understand employee work motivation. These findings have a number of important implications for how public sector organizations can motivate their workforces. In particular, public sector organizations concerned with employee motivation should pay special attention to issues of job design and assign specific tasks that challenge employees. Challenging goals require greater effort from the employee to attain a positive self-evaluation, while specific goals focus employee attention and effort toward the desired task. This finding is generally consistent with previous studies in applied psychology (Locke and Latham 1990) and, therefore, is not new. What is new is the salience of certain factors in the work context.

Job Goal Specificity

Two characteristics of the work context are potentially relevant to job goal specificity and its effect on work motivation. Procedural constraints and organizational goal specificity together explain 25 percent of the variance in job goal specificity and, therefore, have important indirect effects on work motivation through job goal specificity. This study suggests that the ambiguity of the organizational level goals may carry over to the job level through its relationship with feedback. The clarity of organizational goals may allow supervisors and peers to be more able to provide summative or formative evaluations an employee's performance that can help to clarify job and performance expectations. To the extent that organizational goals are ambiguous, the adverse effects of this ambiguity may be partially mitigated by programs designed to improve the quantity and quality of feedback that the employees receive from a variety of sources including their supervisors, peers, and clients. This relationship may be particularly salient to public sector organizations if they are characterized by ambiguous goals, an assertion that has received some (Baldwin 1987) but not complete empirical support (Rainey 1983; Rainey, Pandey, and Bozeman 1995). The recent focus on customer service initiatives, for example, may highlight an important source for feedback regarding job responsibilities and performance previously underutilized in the public sector.

There is considerable evidence to support high levels of perceived procedural constraints in the public sector (Rainey 1983; Baldwin 1990; Bozeman, Reed, and Scott 1992; Rainey, Pandey, and Bozeman 1995) and the results of this study indicate that procedural constraints have an indirect relationship with work motivation through their influence on job goal specificity. When the established organizational policies or procedures hinder or diverge from assigned performance objectives, employee motivation may decline as an employee becomes uncertain as to what performance is desired. These findings suggest that steps should be taken to reduce the procedural constraints found in public organizations. Fortunately, this is one of the primary goals of government reform initiatives under both the Clinton (National Performance Review) and Bush (Freedom to Manage) Administrations. Unfortunately, the proliferation of procedural constraints is often outside of the organization's control, stemming from the need to protect citizens and insure an appropriate use of the resources they provide for government action. To the extent that procedural constraints cannot or should not be reduced, the model does suggest an alternative strategy. Public sector organizations, and the managers that represent them, may be able to mitigate some of potential conflict and confusion caused by employee perceptions of procedural con-

straints through better communication. If public sector organizations provide employees with a better understanding of organizational goals and their relationship to their job level goals, it may reduce the appearance of organizational goal conflict and help employees recognize how the organizations rules and regulations are expected to coexist with particular performance expectations. In fact, just giving employees the opportunity to talk about the objects of their complaints may reduce the perceived existence or importance of them (Roethlisberger 1941). While this strategy does not change existing rules or regulations, it can reduce the perception that the organization's goals conflict and that its procedures constrain employee actions.

Job Goal Difficulty

Although this study provides no evidence that aspects of the work context influence the degree of job difficulty, it does support the hypothesized relationships between job goal difficulty and work motivation. Organizations intent on improving employee performance should structure jobs in ways that challenge their employees. Together, these findings suggest an important insight regarding employee work motivation in public sector organizations. Even if sector differences exists, the aspects of the work context believed to be characteristic of public sector organizations do not seem to adversely affect the job characteristic found to have the largest effect on work motivation. Given this finding, it is remarkable that an emphasis on providing employees with challenging goals has not played more prominently in research on government performance or the reforms aimed at improving it.

Self-Efficacy

Goal-related attitudes are important for work motivation because they help establish the conditions under which the individual accepts a performance goal and is determined to reach it, even if confronted with setbacks or obstacles. Employees with higher self-efficacy will believe that the goal can be achieved and are more likely to persist in their efforts toward goal attainment. Although there are a number of individual attributes that contribute to an employee's sense of self-efficacy, this study suggests that the work context also plays a role. Both procedural constraints and organizational goal specificity have indirect effects on work motivation through job goal specificity and its influence on self-efficacy (figure 2). In other words, to the extent that the public sector work environment is characterized by procedural constraints and low organizational goal specificity, employee work motivation may suffer as employees perceive their performance goals as unachievable regardless of their effort. This only reinforces the recommendation that extreme care should be taken by organizations to limit the adverse effect of these contextual factors through greater communication and clarification of organizational goals. In addition to changing the environmental conditions, however, the organization can also change how the employees react to these conditions. Studies have shown that self-efficacy can remain high even as goals become more difficult and the objective probability of goal attainment decreases (Klein et al. 1999). Organizational training and mentoring programs can improve work motivation by providing employees with the support or confidence necessary to work with the constraints placed upon them. Working with the employees to

develop performance resources and strategies, for example, has been found to increase employee self-efficacy and job attendance in public sector organizations (Frayne and Latham 1987; Latham and Frayne 1989).

CONCLUSION

Although work motivation is just one factor influencing performance, it is a critical mediator between employee performance and ability or situation. A better understanding of work motivation, therefore, is essential to any effort to improve the efficiency and effectiveness of public organizations (Rainey and Steinbauer 1999). Although the results of any single study should be viewed with some caution, this study advances our understanding of work motivation in the public sector by using the well-established theoretical framework provided by goal-setting and social cognitive theories to examine how the work context might influence work motivation. The findings generally lend support to this conceptual model, suggesting not only that job goals should be specific, difficult and doable, but also that organizational goal conflict, goal ambiguity, and procedural constraints may have a detrimental effect on work motivation through their influence on these antecedents of work motivation. To the extent that the purported sector differences on these work context variables exist, then this model may suggest structural problems unique to the public sector motivational context.

Just as important as the empirical support for goal-setting and social cognitive theories, however, is the potential for these theories to provide a conceptual framework to extend our understanding of other aspects of the public sector motivational context. In particular, future research should advance our understanding of work motivation in the public sector by including important variables regarding goal importance. Rainey and Steinbauer (1999) have suggested that the effectiveness and performance of government agencies may be enhanced by three interrelated levels of intrinsic rewards—task, mission, and public service—that are available through the employee's role in the organization. This assertion is consistent with the goal theory of work motivation and its expectation that employees will expend greater effort toward achieving performance goals that they believe will result in important outcomes (Locke and Latham 1990). In fact, goal theory can provide an important theoretical framework to guide investigations of the separate but interrelated contributions of task, mission, and public service motivation. For example, similar to the concept of task significance, employees may be more likely to see their work as important if they can see how their work contributes to achieving organizational goals (Wright 2001). This link between individual and organization goals, however, may extend beyond the boundaries of the organization in the public sector because of the congruence between the altruistic nature of public sector goals and the desire public sector employees have to do work that helps others and benefits society (Perry and Wise 1990; Crewson 1997). In other words, if public sector employees perceive their own work as important to accomplishing agency goals that benefit society, then they may strive harder to achieve their job level goals. Thus, future research can capitalize on the conceptual framework provided by goal and social cognitive theories to advance our understanding of the work context within organizations and how sector differences may influence employee work motivation and productivity in public organizations.

APPENDIX

Work Motivation

I put forth my best effort to get my job done regardless of the difficulties.

I am willing to start work early or stay late to finish a job.

It has been hard for me to get very involved in my current job.[a]

I probably do not work as hard as others who do the same type of work.[a,b]

I do extra work for my job that isn't really expected of me.[b]

Time seems to drag while I am on the job.[a,b]

Job Goal Specificity

My responsibilities at work are very clear and specific.

I understand fully which of my job duties are more important than others.

It is difficult to evaluate success or failure on my job.[a]

I know exactly what I am supposed to do on my job.[b]

Job Goal Difficulty

The work objectives in my job require a great deal of effort.

A high degree of skill and know-how is necessary to do my job well.

Jobs like mine are quite demanding day after day.

My work is very challenging.[b]

My job is easy.[a,b]

Feedback

My last performance evaluation assisted me in improving my work.

I get coaching from my supervisor to help me do a better job.[b]

I get helpful information from others about how well I am performing at my job.[b]

I receive useful evaluations of my strengths and weaknesses at work.

[a]   Reverse worded.
[b]   Responses were based on a five-point frequency scale coded 0 (never/almost never) through 4 (always/almost always). All other items used a six-point agree/disagree scale coded 1 (strongly disagree) through 6 (strongly agree).

Self-Efficacy

I am confident that I can successfully perform any tasks assigned to me on my current job.

I can complete the work that is expected of me.

I am not as well prepared as I could be to meet all the demands of my job.[a]

I can't get my work done on time even when I try very hard.[a,b]

Procedural Constraints

I have the authority to change my work processes to get the job done.[a]

This organization seems much more concerned that I follow procedures than that I do a good job.

I always must check with my boss before making important decisions.

Rules, administrative details, and "red tape" make it difficult for new ideas to receive attention.[b]

In my job even small matters have to be referred to someone higher up for a final answer.[b]

Organizational Goal Conflict

To satisfy some people, this organization will inevitably upset others.

This organization has been given conflicting priorities.

This organization seems to be working at cross-purposes.

Success in parts of this organization undercuts the success of others.[b]

Organizational Goal Specificity

I can clearly explain to others the direction (vision, values, mission) of this organization.

This organization has objectives that are specific and well defined.

There is a clear understanding of organizational priorities.[b]

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