

Job Tenure as a Moderator of the Relationship Between Autonomy and Satisfaction

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The purpose of this study was to determine the extent to which job tenure moderates the relationship between autonomy and job satisfaction. Autonomy was operationally defined using Breugh's (1985) work autonomy scale, which measures three facets of autonomy, while job satisfaction was measured using three scales from the Job Descriptive Index (Smith, Kendall, & Hulin, 1969). Data were collected from a sample of 76 production workers. It was found that job tenure does moderate the relationship between job satisfaction and both criteria autonomy and scheduling autonomy. The findings reported in this paper suggest that employers should proceed cautiously when introducing empowerment programs to new production workers. A complete PDF version of this article can be found at www.radford.edu/~applyhrm.

Employee empowerment is a topic of great interest in the popular business press. For example, a search of the on-line book retailer Amazon.com under the topic "employee empowerment" generated a list of 66 book titles currently in print, most of which have been published in the last five years. Similarly, it is not uncommon to talk with business executives who have been bitten by the empowerment bug. There is an unspoken assumption among many that employee empowerment is a universally effective management strategy (Quinn & Spreitzer, 1997). The benefits of such a strategy are said to include increased employee loyalty, increased job satisfaction, increased job performance, and a greater sense of ownership over the business (e.g., Bowen & Lawler, 1992). Popular press books and articles on the subject more often than not offer advice on the best approach for empowering employees with little discussion of the appropriateness of doing so. Furthermore, there are few empirical articles that support such prescriptions (Quinn & Spreitzer, 1997).

This research seeks to examine the extent to which employee empowerment is appropriate for all types of employees and will thus generate the promised outcomes. Specifically, this study examines a critical aspect of empowerment, autonomy, and its relationship to job satisfaction and the extent to which that relationship is moderated by job tenure. The results of this research can help clarify the circumstances under which it might be appropriate to promote employee empowerment.

Autonomy as a Component of Empowerment

Drawing on earlier work by Conger and Kanungo (1988) and Thomas and Velthouse (1990), Spreitzer (1995a) has recently defined psychological empowerment as a motivational construct that consists of four distinct cognitions—meaning, competence, self-determination, and impact.

- Meaning, or purpose, addresses the fit between the needs of one's work role and the collection of individual beliefs, values and behaviors.
- Competence, or self-efficacy that is specific to one's work, is a belief in one's capability to perform work activities with skill and is similar to the concepts of agency beliefs, personal mastery, or effort-performance expectancy (Spreitzer, 1995b).
- Self-determination or autonomy involves exercising control over the methods used to perform work activities, the scheduling of those activities, and the standards used to judge performance (Breugh, 1985).
- Impact is the degree to which one can influence strategic, administration, or operating outcomes in one's department or work unit (Spreitzer, 1995b).

Self-determination or autonomy and impact both address the notion of perceived control (Spector, 1986). Self-determination reflects an emphasis on personal control over individual work outcomes while impact reflects a level of personal control over work unit outcomes (Spreitzer, 1995b). Spreitzer, Kizilos, and Nason (1997) note that the dimension of self-determination or autonomy has been widely viewed as representing the essence of empowerment from the practitioner perspective (e.g., Byam, 1988) and in early academic research in the area (e.g., Burke, 1986, Koestenbahr, 1991). In her own scale-development research, the dimension of self-determination had the highest loading on a second-order empowerment factor (Spreitzer, 1995b). This gives some indication of the significance of autonomy in defining the global construct of empowerment.

Recent Conceptualizations of Autonomy

Early research on autonomy tended to characterize it as a unidimensional construct (e.g., Hackman & Oldham, 1975). However, Breugh began a line of research in 1985 in which he conceptualized autonomy as multi-dimensional. Specifically, Breugh (1985) hypothesized the existence of three facets of autonomy: Work method autonomy, work scheduling autonomy, and work criteria autonomy. Work method autonomy was defined as the degree of discretion/choice that individuals have regarding the procedures/methods to use in going about their work. Work scheduling autonomy refers to the extent to which workers feel they can control the scheduling, sequencing, or timing of their work activities. And work criteria autonomy addresses the degree to which workers can choose to modify the indicators/standards used for evaluating performance.

Spreitzer (1997) notes that much of the recent research on self-determination (autonomy) has made use of a three-item measure, and she suggests that a “more encompassing” measure of self-determination should be used in future research. The present study attempts to address these recommendations by employing Breugh’s multi-faceted measure of work autonomy (Breugh, 1985). An on-going program of research has attempted to establish the construct validity of the measure (e.g., Breugh, 1985; Breugh & Becker, 1989).

The Relationship Between Autonomy and Outcome Variables

The dependent variable selected for examination in this research is job satisfaction. Job satisfaction was chosen for investigation because it is the most widely studied individual differences variable in organizational research (Cranny, Smith, & Stone, 1992). In addition, it has been shown to have meaningful relationships to a number of important variables including performance, organizational citizenship behavior, turnover, absenteeism, and counterproductive behavior (Judge, Thoresen, Bono, & Patton, 2001; Spector, 1997). There has been a limited amount of research addressing the relationship between autonomy and various outcome variables, including job satisfaction.

Spreitzer (1995b) found positive correlations between a global measure of empowerment and subordinate and superior assessments of innovative behavior. In addition, a positive correlation was found between the global measure of empowerment and subordinate assessments of managerial effectiveness. Similarly, Spreitzer (1997) found that self-determination accounted for a small amount of variation in job satisfaction above and beyond three other dimensions of empowerment (i.e., impact, competence, and meaning). Fulford and Enz (1995) found that a global measure of employee empowerment accounted for 15% of the variance in job satisfaction and 35% of the variance in employee loyalty. Kraimer, Seibert, and Liden (1999) found that elements of empowerment that are related to autonomy (self-determination and impact) accounted for 38% of the variance in organizational commitment.

An earlier meta-analysis by Spector (1986) under the rubric of perceived control, revealed significant relationships between autonomy and a variety of outcome variables including job satisfaction, organizational commitment, and job performance. For example, mean r 's ranged from .19 for the relationship between autonomy and pay satisfaction to .32 for the relationship between autonomy and the work itself.

However, the research in the area of empowerment/autonomy has suffered from some limitations. For example, Spreitzer (1995) looked at behavioral outcomes of empowerment but did not examine attitudinal outcomes. Kraimer, Seibert, and Liden (1999) did look at attitudinal outcomes (i.e., organizational commitment) but did not examine job satisfaction, which is the most widely studied job attitude (Spector, 1997). Fulford and Enz (1995) did examine the relationship between autonomy and satisfaction, but the measure of satisfaction used was a one-item measure.

Job Tenure as a Moderator

Both Spector (1986) and Spreitzer (1995) have argued that moderators of the relationship between empowerment and important outcome variables should be investigated. Spector (1986) argued that the substantial variability in relationships between autonomy and satisfaction uncovered in his meta-analysis warranted a search for moderators. Spreitzer (1995) argued for such a search as part of the construct development process associated with her instrument that purports to measure global empowerment. The present study proposes job tenure as a moderator of the relationship between autonomy, a critical component of empowerment, and job satisfaction. Presented below is a theoretical/rational argument in support of this contention.

Early job design research by Hackman and Oldham (1975), career stages research by Katz and Van Maanen (1977) and Schein (1971), and organizational socialization work by several researchers suggests that newcomers to a job are much more concerned about establishing their own work identity than they are in taking control of a work situation. However, as one's career unfolds and one's level of job knowledge and confidence increases, individuals appear to want more control or say over what happens at work. The implication is that job tenure may moderate the degree of control one seeks on a job.

The extent to which job tenure moderates the autonomy-satisfaction relationship might also be influenced by the type of job one holds. Job analytic work (e.g., Gottfredson, 1986), as well as the research on job complexity (e.g., Hunter, Schmidt, & Judiesch, 1990), suggests that blue-collar jobs are typically less complex than white collar jobs. Furthermore, the individuals that hold blue-collar jobs tend to be less well educated and less cognitively complex given the typical job specifications for such positions (Hunter, Schmidt, & Judiesch, 1990).

Blue collar workers may very well be likely to enter jobs of lower complexity without the initial desire, or expectation, for control at work. Therefore, it seems reasonable to assume that the job satisfaction of such workers is less likely to be substantially impacted by the presence or absence of autonomy early in their employment. However, as they begin to grow in their role and develop a better understanding of how the ability to control the work environment can have a positive influence on their lives, they begin to desire autonomy. Thus, as tenure with the organization increases, the satisfaction of the blue collar worker is very substantially impacted by the presence or absence of autonomy at work.

In light of the research and rational argument presented above, we hypothesize that job tenure will moderate the relationship between the three facets of autonomy and three different facets of job satisfaction. The specific nature of this interaction will be such that the relationship between autonomy and satisfaction will be stronger for high tenure employees than for low tenure employees.

Method

Participants and Procedure

The sample of participants consisted of 76 production workers. There were 56 males and 20 females in the sample. The ages of the employees ranged from 18 to 63 years, with 79% of the participants being between the ages of 25 and 44. The sample was 80% white.

The organization in question provided time for employees to complete the instruments described below. Materials were collected directly from participants by a graduate research assistant.

Measures

Autonomy. Each participant completed Breugh's Work Autonomy Scale (Breugh, 1985). The scale consists of nine items that measure three facets of work autonomy—work method autonomy, work criteria autonomy, and work scheduling autonomy. Each facet is measured with three items to which individuals respond using a seven-point Likert scale. Facet scores are computed by summing the relevant items. Several studies have been published that provide evidence for the construct validity of the scales (e.g., Breugh, 1985; Breugh & Becker, 1987; Breugh, 1989; Breugh, 1999). Cronbach's alpha for the work method autonomy scale was .91, work criteria autonomy scale .78, and work scheduling autonomy scale .85.

Job Satisfaction. Participants completed the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) and the Job in General Scale (JIG; Ironson, Smith, Brannick, Gibson, & Paul, 1989). These are among the most often used measures of job satisfaction (Spector, 1997). Information regarding the validity and reliability of the JDI scales can be found in Balzer, Kilm, Smith, Irwin, Bachiochi, Robie, Sinar, & Parra (1997). Similar information regarding the JIG can be found in Ironson et al (1989). Results from the JIG and the Work on Present Job and Supervision scales from the JDI will be reported here.

Tenure. A four-point tenure scale was used in which respondents selected the range of service that matched their time spent with the organization (e.g., less than 1 year, 6 - 8 years).

Results

Table 1 contains the means, standard deviations, and variable intercorrelations. The data contained in Table 2 address the hypotheses.

Table 1
Descriptive Statistics and Variable Intercorrelations

| | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------------------|-------|-------|-----|-----|------|------|------|------|---|
| Facets of Autonomy | | | | | | | | | |
| 1. Work method | 4.83 | 1.66 | .91 | | | | | | |
| 2. Work scheduling | 3.44 | 1.85 | .68 | .85 | | | | | |
| 3. Work criteria | 4.18 | 1.49 | .51 | .53 | .78 | | | | |
| Facets of Job Satisfaction | | | | | | | | | |
| 4. Work on present job | 27.40 | 15.73 | .53 | .58 | .44 | | | | |
| 5. Supervision | 35.81 | 15.93 | .51 | .46 | .42 | .70 | | | |
| 6. Job in general | 37.94 | 12.84 | .35 | .79 | .75 | .51 | .47 | | |
| 7. Tenure | 1.92 | 1.09 | .09 | .08 | -.09 | -.12 | -.17 | -.17 | |

Note. N=76. All coefficients that exceed .34 are significant at $p < .01$. Values on the diagonal for the facets of autonomy are coefficient alphas computed in this study. Data were not available to compute coefficient alpha for the facets of satisfaction.

The moderating impact of tenure on the autonomy-satisfaction relationship was tested using multiple regression. Each measure of job satisfaction was separately regressed onto each measure of work autonomy (i.e., method, criteria, scheduling), tenure, and an interaction term. A review of the significance of the interaction term serves as a test of the hypotheses. Table 2 shows that the interaction term involving tenure and scheduling autonomy was a significant predictor of both satisfaction with work on the present job and satisfaction with supervision ($p < .05$) and a marginally significant predictor of satisfaction with the job in general ($p < .10$). Table 2 reveals that the interaction term involving criteria autonomy and tenure was a significant predictor of satisfaction with work on the present job and satisfaction with the job in general ($p < .05$). None of the interaction terms involving tenure and method autonomy were significant predictors of job satisfaction. These results provide some support for the hypothesis that job tenure moderates the relationship between autonomy and satisfaction.

To clarify these significant interactions, the sample was split into a high tenure and a low tenure group and the correlation between each measure of satisfaction and each measure of autonomy was computed. Table 3 contains these correlations and mirrors the results of the regression analyses. The hypothesized pattern of correlations (i.e., higher correlations for high tenure groups than for low tenure groups) are observed in this table.

Table 2
Regression analysis summary for facets of Satisfaction

| | Satisfaction Facet | | |
|---------------------------------|---------------------|----------------|-------------|
| | Work on Present Job | Job-in-General | Supervision |
| Scheduling Autonomy | | | |
| Scheduling Autonomy (β) | -.04 | -.01 | -.22 |
| Tenure (β) | -.60*** | -.57*** | -.70*** |
| Scheduling x Tenure (β) | .81* | .66* | .92* |
| <i>F</i> | 15.04*** | 10.06*** | 10.83*** |
| R^2 | .39 | .30 | .31 |
| R^2 corrected for shrinkage | .36 | .27 | .28 |
| Criteria Autonomy | | | |
| Criteria Autonomy (β) | -.42 | -.37 | -.06 |
| Tenure (β) | -.97*** | -.88*** | -.61 |
| Criteria x Tenure (β) | 1.21** | 1.02** | .66 |
| <i>F</i> | 9.00*** | 5.66*** | 6.53*** |
| R^2 | .27 | .19 | .21 |
| R^2 corrected for shrinkage | .24 | .16 | .18 |
| Method Autonomy | | | |
| Method Autonomy (β) | .14 | .19 | .08 |
| Tenure (β) | -.60*** | -.58*** | -.70*** |
| Method x Tenure (β) | .63 | .53 | .71 |
| <i>F</i> | 11.69*** | 11.32*** | 11.85*** |
| R^2 | .33 | .32 | .33 |
| R^2 corrected for shrinkage | .30 | .29 | .30 |

Note. $N = 76$ for all analyses.

* $p < .10$. ** $p < .05$, *** $p < .01$

Although the interaction terms involving method autonomy and tenure were not significant, the pattern of correlations involving method autonomy and job satisfaction, as a function of tenure group, merit further investigation. Bobko (1995) suggests a two-stage process for examining such correlations. First, each individual correlation that makes up every pair of correlations to be compared must first be tested to determine if it is significantly different from zero. If one or both are significantly different from zero, the correlations that make up the pair are tested to determine if they are significantly different from each other using Fisher's z -transformation.

The correlations between method autonomy and the three forms of job satisfaction were significantly different from zero and were higher in the high tenure group. These same correlations for the low tenure group were not significantly different from zero. While these findings provide some limited directional support for tenure as a moderator of the method autonomy-job satisfaction relationship, the correlations in the high tenure and low tenure groups were not significantly different from each other.

Table 3
Correlations Between Autonomy Facets and Satisfaction facets as a Function of Tenure Status

| | Present Job | Supervision | Job in General |
|---------------------|-------------|-------------|----------------|
| Method Autonomy | | | |
| Low tenure | <u>.44</u> | <u>.36</u> | <u>.39</u> |
| High tenure | <u>.62</u> | <u>.60</u> | <u>.56</u> |
| Scheduling Autonomy | | | |
| Low tenure | .36 | .19 | .27 |
| High tenure | .79 | .70 | .66 |
| Criteria Autonomy | | | |
| Low tenure | .18 | .22 | <u>.07</u> |
| High tenure | .68 | .50 | <u>.49</u> |

Note. Correlations greater than .40 are significantly different from zero at the $p < .05$ level using a Bonferonni adjustment. Pairs of correlations that are underlined are **not** significantly different from each other.

Discussion

The results of this study would appear to suggest that job tenure does indeed moderate the strength of the relationship between autonomy and job satisfaction for blue collar employees. Specifically, the hypothesis as it relates to work criteria autonomy and work scheduling autonomy was largely supported. The interaction of tenure and criteria autonomy was a significant predictor of satisfaction with work on the present job and satisfaction with the job in general. This suggests that tenure does appear to moderate the criteria autonomy-job satisfaction relationship. The interaction of tenure and scheduling autonomy was a significant predictor of all three measures of job satisfaction and suggests that tenure moderates the relationship between autonomy and job satisfaction. None of the interaction terms involving tenure and method autonomy were significant predictors of job satisfaction although an examination of Table 3 suggests that a lack of statistical power due to a small sample size might explain this result.

Empowerment is often thought to be a technique capable of generating improvements in worker morale by offering them greater control over what happens at work (Spector, 1986). Organizations may attempt to empower employees as part of a quality initiative in the hope that, among other things, levels of satisfaction will improve and absenteeism and turnover will decline. The research reported in this paper raises questions about the degree to which this strategy would be effective. These findings suggest that employers should proceed very cautiously when introducing empowerment programs to new production workers. Given the fact that such programs are costly and time consuming, it may be prudent to withhold the introduction of empowerment programs until the employees are ready for them.

This research suggests that production-workers' needs for autonomy, and the impact of this need on job satisfaction, increases over time. This assumption should be assessed further using a longitudinal research design. Furthermore, researchers should

seek to determine the most appropriate time to introduce empowerment programs to production workers.

Future research should also seek to determine whether these findings apply to white collar workers. Individuals who hold white collar jobs tend to be better educated and more cognitively complex given the typical job specifications for such positions (Hunter, Schmidt, & Judiesch, 1990). It seems reasonable to assume that most individuals in complex jobs entered such positions with the expectation, and the desire, to exercise a certain degree of control over their work. Given these feelings, one might suspect that their level of tenure with the organization would be less likely to effect their need for autonomy, i.e., the degree of autonomy is likely to be strongly related to job satisfaction regardless of their tenure with the organization. In addition to collecting data from a different kind of participant, other dependent measures such as organizational commitment or job performance should be examined.

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