Social and Situational Influences on the Performance Rating Process

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Abstract
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CAHRS, ILR, center, human resource, job, worker, advanced, labor market, satisfaction, employee, work, manage, management, training, HRM, employ, model, industrial relations, performance rating, evaluation

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SOCIAL AND SITUATIONAL INFLUENCES ON THE
PERFORMANCE RATING PROCESS

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The effects of social and situational influences on the performance rating process have received relatively little attention by past research, yet merits increased attention. While there has been greater acknowledgment of the role of social and situational factors on rater cognition and evaluation, research has typically proceeded in a piecemeal fashion, isolating on a single influence at a time. This approach fails to recognize that performance rating is a process with multiple social and situational influences that need to be considered simultaneously. In the present study, a model of the performance rating process was tested, employing several social and situational variables that have been infrequently investigated and typically not in conjunction with one another. Results indicated support for the overall model and specific influences within the model. Implications of the results for performance rating research are discussed.

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SOCIAL AND SITUATIONAL INFLUENCES ON THE PERFORMANCE RATING PROCESS

There is perhaps not a more focal human resources system in organizations than performance evaluation. Supervisor ratings of subordinate performance represent critical decisions which are key influences on a variety of subsequent human resources actions and outcomes. Indeed, it is this pivotal role of performance evaluation that has promoted systematic efforts to develop a more informed understanding of the performance rating process.

Just over a decade ago, Landy and Farr (1980) issued a call for research investigating the cognitive processes underlying performance appraisal decisions. Although the process focus has generated considerable research concerning various components of the performance rating process, more comprehensive investigations incorporating several of these components has been lacking. Further, process oriented research has been limited by its reliance on laboratory studies (DeNisi & Williams, 1988). While the cognitive processes involved in performance rating decisions can be well illuminated in laboratory studies, the "quiet" nature of laboratory studies often does not match the "noisy" context in which performance rating decisions actually are embedded (Lord & Maher, 1989).

Other researchers in the performance rating area, while acknowledging that cognitive issues are important, have argued that social and situational influences have been neglected (Dipboye, 1985; Ilgen & Favero, 1985; Mitchell, 1983; Wexley & Klimoski, 1984). As Mitchell (1983) pointed out, when one considers that employees often work in groups, that some of their work is unobserved, and that evaluators often have various motives in evaluating performance, traditional approaches to performance appraisal may be inadequate. Thus, the social context appears to be an important forum through which performance rating decisions are investigated.

The purpose of the present study is to propose and test a model of social influence in the performance rating process. Implicit in development of the model was recognition
that the performance rating process has multiple social and situational influences that should be simultaneously considered. This moves beyond the fragmentary manner in which past research has generally investigated social and situational influences. The proposed model is not intended to be a comprehensive test of all social and situational elements that may influence performance ratings. Rather, it employs a set of key social and situational variables, including some not previously tested, in order to investigate the overall effect of social influence processes on performance rating, as well as the specific effects of the factors in the model. The results should provide useful information regarding the viability of the social context in the performance rating process.

THE SOCIAL CONTEXT OF PERFORMANCE RATING DECISIONS

In the last decade, a great deal of research has investigated the cognitive processes underlying performance appraisal decisions (Borman, 1978; Cooper, 1981; DeNisi, Cafferty, & Meglino, 1984; DeNisi & Williams, 1988; Feldman, 1981; Ilgen & Feldman, 1983; Landy & Farr, 1983; Motowidlo, 1986; Nathan & Alexander, 1985; Nathan & Lord, 1983). While much has been learned about cognitive processes, DeNisi and Williams (1988) have noted that very little is new in the models proposed, and the elements of these models tested, in the last decade. Furthermore, warnings have been issued by some performance rating researchers that an exclusive focus on cognitive processes is likely to miss an important element of performance evaluation, namely the contextual influences within which rating decisions are embedded (Dipboye, 1985; Ilgen & Favero, 1985; Nathan, Mohrman, & Milliman, 1991; Wexley & Klimoski, 1984). This concern has recently been echoed by researchers from social psychology. For example, Schneider (1991) has suggested that past research in this area has focused on intrapsychic processes but overlooked the social and situational context. He noted that increased research attention regarding the influence of the social context on cognitive processes is sorely needed.

Research on cognitive processes can be seen as complimenting, rather than opposing, investigation of the contextual effects on performance rating decisions.
Cognitive-oriented research has clearly demonstrated that the rating process is subjective, and that the many cognitive steps used by the rater to process information (e.g., presentation of input, attention, encoding, storage, retrieval, integration, and rating; Wexley & Klimoski, 1984) allow extraneous influences to enter into the process at each of these steps (DeNisi & Williams, 1988). Thus, the cognitive approach to performance evaluation assumes that errors in rating are due to how individuals input, process, and recall information. Errors in ratings (deviations in ratings from true performance) are due to specific cognitive processes. If social and situational elements are salient to the rater, they are likely to influence rater cognitions of performance information. Thus, while more attention may need to be focused on the context of rating decisions, this does not mean that the past, and present, cognitive focus is irrelevant. In fact, research regarding the subjectivity of the rating process suggests a need to consider contextual elements that may influence the cognitive processes involved in performance rating.

Several contextual elements have been hypothesized by researchers in the area. Mitchell (1983) argued that three important classes of social and task factors have been studied infrequently, or not at all, in the performance appraisal process. The first set of factors hypothesized by Mitchell to affect performance ratings were task factors. One of the primary task factors identified by Mitchell was supervisor experience. Mitchell and Kalb (1982) found that supervisors who had experience performing the task on which they were rating subordinates were more likely to attribute poor performance to factors beyond the subordinate's control. Wexley and Klimoski (1984) also have suggested that supervisor experience is an important consideration in the performance rating process.

Feldman (1986a,b) has argued that it is important to distinguish between supervisor experience and expertise. He noted that expertise implies a well-developed cognitive categorization system, including specifically detailed prototypes. Such a categorization system tends to serve as a guide for attention, encoding, and memory processes. Alternatively, experience alone makes no necessary claim to the development of complex
cognitive categorization systems. It would be the nature and quality (and not simply the quantity) of experience which would lead to expertise.

The second class of social and task factors hypothesized by Mitchell (1983) is environmental factors. A principal environmental factor cited by Mitchell is ease of observation. As noted by Mitchell, one would expect that ratings become more valid as the opportunity of the supervisor to directly observe the subordinate's performance increases. The potential importance of supervisor opportunity to observe subordinate performance to performance rating also was reinforced by Wexley and Klimoski (1984).

One might expect that ease of observation is a direct function of the number of employees the supervisor must evaluate. This would suggest that the greater the span of control, the less opportunity to observe each subordinate's performance. While this may be true in some cases, one would not expect a perfect (or even strong) relationship between span of control and direct opportunity to observe in many contexts. For example, supervisors may differ in the degree of nonsupervisory responsibilities they have (e.g., paperwork, meetings, type of work conducted in each department). Landy and Farr (1983) have argued that frequency of contact (measured by span of control) may be less important than the relevancy of the contact. Therefore, while a low span of control may indicate greater opportunity to observe, it also is important to directly assess ease of observation since supervisors with similar spans of control may have differing opportunities to observe subordinate's performance, for reasons explained above.

The third class of social and task factors hypothesized by Mitchell (1983) to affect performance ratings was elements of the social context. One prime example of the social context discussed by Mitchell is similarity between the supervisor and subordinate. Similarity, perceived or actual, has been a rather fruitful area for performance evaluation research. Research has indicated that increased similarity between supervisor and subordinate leads to higher performance ratings (Miles, 1964; Pulakos & Wexley, 1983; Senger, 1971; Turban & Jones, 1988; Wexley, Alexander, Greenawalt, & Couch, 1980).
Perhaps the social psychological reason for this effect is that similarity leads to attraction (Byrne, 1969), and in turn attraction or liking leads to higher performance ratings (Turban & Jones, 1988).

Affect or liking represents another potential influence on the performance rating process, and recent research has demonstrated significant effects (Cardy & Dobbins, 1986; Kingstrom & Mainstone, 1985; Tsui & Barry, 1986; Wayne & Ferris, 1990). DeNisi and Williams (1988) suggested that affect influences the processing of performance information, and Isen and Baron (1991) have elaborated upon this suggestion. They argued that positive affect facilitates the recall of positive information stored in memory which possesses an affective tone. Research on affect and performance ratings has demonstrated that liking for subordinates tends to increase halo error in ratings, but dislike of subordinates tends to demonstrate weaker effects on such evaluations (Sinclair, 1988; Tsui & Barry, 1986). Finally, affect has been found to be related to a number of outcomes associated with performance ratings, such as reward and resource allocation (Kipnis & Vanderveer, 1971; Podsakoff, 1982).

Another infrequently investigated social influence in performance rating research is the nature of the supervisor - subordinate work relationship. More than 15 years ago, McCall and DeVries (1976) proposed that a key reason that even very sophisticated and sound performance evaluation systems may not work is the nature of the work interactions and relationship between supervisors and subordinates. Unfortunately, researchers apparently have not responded to this proposal, which led Wexley and Klimoski (1984) to conclude that research on performance evaluation has generally ignored the supervisor - subordinate work relationship, and to issue a strong appeal for investigation. Nathan et al. (1991) recently have renewed the call for more research on the effects of the supervisor - subordinate work relationship on the performance rating process.

A final under-investigated social context variable that is believed to influence the performance evaluation process is accountability (Klimoski & Inks, 1990). Accountability
in this context refers to how susceptible an individual -- in this case the supervisor -- is to the wishes or expectations of another -- in this case the subordinate (Tetlock, 1983). According to Klimoski and Inks (1990), accountability may be manifested in two ways. First, if the supervisor expects to provide performance feedback face-to-face to the subordinate, the supervisor will be motivated to issue more favorable ratings than if he or she did not have to provide face-to-face feedback. This is supported by the fact that about 80% of supervisors enjoy performance appraisal when the feedback is positive, but the great majority dislike giving negative feedback (Stone, 1973). Thus, supervisors who must present evaluations face-to-face to the subordinates may be motivated to give positive evaluations because of a dislike of presenting negative ratings to the subordinate.

Second, supervisors' knowledge of or inferences about subordinates' self-rating of job performance may influence supervisors' ratings of subordinate performance. Because accountability implies that the supervisor adapt to subordinates' expectations, Klimoski and Inks (1990) argued that the higher the supervisor feels that subordinates have rated their own performance, the more pressure there is for the supervisor to evaluate subordinates favorably, because supervisors wish to avoid conflict. In fact, the authors found that supervisors who received positive data about subordinates' self-rating of their own performance rated subordinates more favorably than supervisors who received no information or negative information.

MODEL OF SOCIAL AND SITUATIONAL INFLUENCES IN THE PERFORMANCE RATING PROCESS

The foregoing review indicates that social and situational influences may exert important effects on the performance rating process. While previous research has posited the effects of specific social and situational influences on performance ratings, the effects of these variables either have not been extensively investigated, or have been tested in isolation. In reality, these social and situational influences probably do not affect performance ratings in isolation, but rather need to be considered in conjunction with one
another. Therefore, in order to understand the overall influence of the social context in performance ratings, and to facilitate causal interpretation of the specific influences, a causal model was tested considering a number of relevant social and situational influences simultaneously. The model was based primarily on the conceptualization proposed by Mitchell (1983), and also on the specific influences hypothesized by others (Ferris & Judge, 1991; Ferris & Mitchell, 1983; Klimoski & Inks, 1990; Wexley & Klimoski, 1984). Thus, the proposed conceptualization, displayed in Figure 1, is a hybrid model which attempts to effectively and representatively reflect the key social context variables as they affect the performance rating process.

The model depicts a number of social and situational factors influencing supervisor ratings of subordinate performance, two of which operate through supervisor affect toward the subordinate. Mitchell's (1983) model of social and task influences, which consisted of three class of influences, served as the basis for four links in the model. A key environmental influence on performance ratings hypothesized by Mitchell (1983) was ease of observation. Ease of observation may improve the quality of observation of subordinate performance, and thus increase the accuracy of performance ratings. However, this provides no information regarding the direction of influence. In fact, Murphy and Balzer (1989) have argued that rater errors, such as leniency error, do not necessary imply rating inaccuracy. It is expected that ease of observation will positively influence performance ratings.

Supervisors prefer to issue positive performance ratings to subordinates (Klimoski & Inks, 1990; Stone, 1973). Furthermore, there is an upward bias in performance ratings, such that subordinates are given more positive ratings than their "true" performance would indicate (Bass, 1956; DeCotiis & Petit, 1978). This is probably due to the fact that more
negative events (e.g., subordinate resentment, complaints, and lawsuits) derive from issuing negative ratings than positive ratings (Bernardin & Beatty, 1984). Therefore, one could argue that the performance rating process, given the inclination of the supervisors, is a search for positive information. Consistent with hypothesis confirmation strategies (Snyder & Swan, 1978), supervisors seek confirmation of their impression of individuals (Feldman, 1981). Supervisors, because they are motivated to issue positive ratings, in fact may search for positive data to support their motivations.

This contrasts sharply with research on the employment interview, which has been characterized as a search for negative information (Rowe, 1989). The difference in the two processes can be understood by examining the outcomes. In the interview, the interviewer may be more influenced by negative information than positive because false positives (e.g., employees who were hired but turned out to be poor performers) are much more visible to organizations than false negatives (e.g., applicants who would have performed well if hired), as evidenced by the practice of including only those selected in utility estimates (Dreher & Sackett, 1983). Thus, if the interviewer makes a mistake, it is best to err on the side of failing to hire a qualified candidate (overweighting negative information) than hiring an unqualified candidate (overweighting positive information). Conversely, as discussed above, there are more negative consequences than positive when a supervisor issues an overly negative rating. Thus, it is best to err on the positive side in rating performance. This means that if the performance rating process is a search for positive information in most organizations, the more opportunity the supervisor has to observe the subordinate's performance, the more positive information will be encoded and negative information discounted (Feldman, 1981). Thus, one can expect that ease of observation will positively influence performance ratings.

Ease of observation may be manifested in part by span of control. The more employees a particular supervisor must oversee, the less opportunity he or she will have to observe each subordinate's performance. Thus, applying the foregoing logic, it is
hypothesized that greater span of control will lead to lower ratings of subordinate performance.

However, it was suggested earlier that span of control, by itself, is an imperfect measure of ease of observation. Because supervisors differ in the degree of nonsupervisory responsibilities they have, supervisors with identical spans of control may not have the same ease of observation. Furthermore, some supervisors with large spans of control may become more efficient with the increased workload and actually maintain greater direct control with each subordinate than supervisors with smaller spans of control. Thus, it is important to assess ease of observation directly. Thus, while it is hypothesized that span of control will have a negative effect on performance ratings, we expect direct opportunity to observe to have a greater effect because it assesses relevancy rather than solely frequency of contact (Landy & Farr, 1983).

Also drawing from Mitchell (1983), supervisor experience is expected to influence supervisor rating of subordinate performance in a positive way. Unfortunately, the prior research on rater experience has produced mixed results, with some studies focusing on how experience affects reliability of ratings, and others examining effects on rating leniency or favorability (Landy & Farr, 1980). However, more of the studies reviewed by Landy and Farr (1980) seem to suggest a positive relationship rather than a negative (or no) relationship between supervisor experience and performance ratings. It may be the case that less experienced supervisors rate more harshly as a means of demonstrating their capabilities to handle the job of supervisor and make "tough" decisions. As supervisors gain more experience, self-confidence, and become established in their jobs, there is less perceived need to demonstrate one's toughness, and, in fact, they may well adopt more lenient rating tendencies. Another explanation is that experienced supervisors may simply have a better understanding of, and appreciation for, the complexities of task performance. The experienced supervisor may have a better grasp of the uncertainties inherent in the behavior - performance relationship. Finally, it also may be that supervisors experience the
costs of giving unfavorable ratings only over time, through subordinate complaints, appeals, and hostility. Perhaps more experienced supervisors have learned that unfavorable ratings simply are not worth the trouble they cause. For these reasons, it is hypothesized that more experienced supervisors will tend to evaluate subordinate performance more positively than supervisors with less experience.

The final class of social and task factors influencing performance ratings discussed by Mitchell (1983) were elements of the social context, in this case similarity between the supervisor and subordinate. Research on supervisor - subordinate work relationships has suggested that interpersonal similarity leads to mutual liking and attraction. Ducheon, Green, and Taber (1986) found that supervisor - subordinate similarity on several demographic characteristics was positively associated with the mutual affect felt between the supervisor and subordinate. Interpersonal similarity may lead to attraction and compatibility, following the similarity - attraction theory suggested by Byrne (1969). This being the case, demographic similarity is hypothesized to positively influence supervisor affect toward subordinate (Ferris & Judge, 1991).

The nature of the supervisor - subordinate work relationship also is believed to influence both attitudes and behaviors of the supervisor toward the subordinate. Research on leader - member interactions has demonstrated that leaders establish much closer and frequent interaction patterns with subordinates they identify as members of their in-group (i.e., possessing a high quality work relationship with them) than with subordinates they classify as out-group members (i.e., possessing a low quality work relationship with them)(Graen, 1976; Wayne & Ferris, 1990). It is hypothesized then, that supervisor - subordinate work relationship will positively influence supervisor affect toward the subordinate.

Supervisor affect, in turn, is believed to influence directly supervisor ratings of subordinate performance. Following from prior research (Cardy & Dobbins, 1986; Kingstrom & Mainstone, 1985; Tsui & Barry, 1986; Wayne & Ferris, 1990), it is
hypothesized that supervisor affect toward the subordinate has a positive effect on supervisor ratings of subordinate performance. It seems reasonable to conclude that positive affect would lead the supervisor to view the subordinate's performance more positively. Thus, it is hypothesized that supervisor affect toward subordinate has a positive effect on supervisor rating of subordinate performance.

Finally, consistent with Klimoski and Inks (1990), the supervisor's inference of subordinate's self-rating of job performance is expected to positively influence the supervisor's rating of subordinate job performance. If supervisors think that a particular subordinate believes he or she has performed well, it creates expectational pressure on the part of the supervisor (Klimoski & Inks, 1990). These expectational pressures make the supervisor more accountable for negative ratings, and thus pressure the supervisor to issue higher ratings (Klimoski & Inks, 1990). Therefore, it is hypothesized that the higher a supervisor infers that a subordinate believes he or she has performed, the more favorably a supervisor will evaluate subordinate performance.

The purpose of the present study is to test a model of social and situational influences in the performance rating process. Because social and situational factors have been neglected in past research, the individual hypothesized links discussed above are important to investigate in their own right. However, it is important to assess the elements simultaneously, in order to support causal inferences regarding the effects of the variables on performance ratings, and to allow an overall assessment of the effect of the social context on the performance rating process.

METHODS

Sample

Participants in this research were 81 registered nurses and their supervisors sampled across all major subunits in the nursing service departments of a 283-bed hospital located in central Illinois. All staff nurses and supervisors were female and the mean age was 33.72 years with a range of 21-61 years. The median level of organizational tenure for staff
nurses was 31 months with a range of one month to 32.25 years. The mean level tenure working for the current supervisor was 12.57 months, with a range of one month to four years.

As is the case in many organizations, the structure of the nursing service department does not allow a single supervisor for each subordinate. Thus, for the 81 supervisor-subordinate dyads, there were 81 subordinates and 27 supervisors. An effort was made to keep the number of subordinates included for any single supervisor to a minimum to circumvent potential response biases on the part of supervisors. The number of subordinates for any given supervisor in this study ranged from one to four.

**Procedure**

A roster was developed a week before the actual data collection which listed 100 nursing supervisor-subordinate dyads, sampled across all of the major departments in the hospital. On the day data were collected, all day shift supervisors completed questionnaires in a supervisory meeting room about one hour before the end of their shift. They responded to the same set of questions about each of their staff nurses.

The supervisors' staff nurses were let off work about one hour before their shift ended and reported to a conference room to fill out their questionnaires. It was determined based on pretesting that approximately 30 minutes was required for completion of the staff nurse questionnaire, and approximately 40 minutes was required for the supervisors to complete their questionnaires. On the evening shift, since this shift typically is sparsely staffed in hospitals, all the supervisors reported to a designated conference room first (near the end of the shift) to complete questionnaires, then staff nurses were sent at the end of their shift.

In order to circumvent the problem that staff nurses may have more than one supervisor and not knowing which one they were to focus on in the study, when questionnaires were administered, each staff nurse was instructed as to the person they should regard as their supervisor in this study. Due to employee vacations, absences, and
people choosing not to participate on the day data were collected, the final sample consisted of 81 supervisor-subordinate dyads. All staff nurses and supervisors were informed that a complete report of the purpose, results, and implications of this research would be given when the study was completed. Supervisors and subordinates were told that confidentiality of their responses would be maintained. Participation was completely voluntary.

**Measures**

Questionnaires were administered to the 81 staff nurses and separate questionnaires were given to the supervisors to complete. A description of the measures used in the study follows.

*Performance rating.* Supervisors rated each subordinate's overall work performance on a 5-point, Likert-type scale (1 = very poor, 5 = very good). This measure was similar to that recently used by Nathan et al. (1991).

*Supervisor affect toward subordinate.* Supervisors responded to one item assessing their degree of affect or liking toward each subordinate. A 5-point scale (1 = I don't like this subordinate at all, 5 = I like this subordinate very much) was used in response to the question, "How much do you like this subordinate?"

*Supervisor opportunity to observe subordinate performance.* The degree of opportunity a supervisor had to observe the work performance of each subordinate was assessed by asking each subordinate to respond to the following item:

> Sometimes a supervisor's job is such that he/she does not have a good opportunity to observe the work performance of his/her employees (e.g., due to being overloaded with work or due to having so many employees working for him/her there is just not the opportunity to regularly interact with all of them). How much do you think your supervisor regularly has the opportunity to observe your job performance and thus knows how you are doing?

A 5-point scale (1 = almost never; my supervisor almost never has the opportunity to observe my job performance, 5 = very much; my supervisor regularly has the opportunity to observe my job performance) was used in response to this question.
Supervisor - subordinate work relationship. With the focus of this research directed at understanding the performance evaluation process through the on-going, day-to-day interactions of supervisors and subordinates, it was necessary to utilize a measure that assessed the relationship subordinates shared with their supervisor. The measure developed here consists of five items which were believed to tap the supervisor - subordinate work relationship. The five items used were previously developed by Graen and his associates (e.g., Dansereau, Graen, & Haga, 1975; Graen & Scheimann, 1978) and taken from their measure of leader - member exchange. All items were measured on a 5-point scale. The questions consisted of: (1) how close of a relationship do you have with your supervisor?; (2) how flexible do you believe your supervisor is in bringing about change in your job?; (3) what are the chances your supervisor will use his/her power to help you solve problems in your job?; (4) how much can you count on your supervisor to "bail you out," at his/her expense, when you really need him/her?; (5) how often do you take your suggestions regarding your job to your supervisor? These five questions were summed to form a work relationship scale. The coefficient alpha reliability estimate for this scale was .83.

Demographic similarity. A composite measure of demographic similarity between supervisor and subordinate was created by standardizing and summing the absolute differences between supervisor and subordinate on age and tenure in the organization. Because the supervisors and subordinates were of the same sex and race, consistent with Turban and Jones (1988), age and tenure were seen as the most relevant measures of demographic similarity for this sample.

Supervisor inference of subordinate self-rating of performance. Supervisors were asked to indicate on a 1-5 scale (1 = very poor, 5 = very good) how they thought each of their subordinates had evaluated their own job performance.
Span of control. Supervisors' self-report of the number of employees who report directly to them was used as the measure of span of control. This information was verified by the nursing administration office.

Supervisor experience. Tenure in their current position as supervisor was used as the measure of supervisor experience.

RESULTS

Fundamental to the integrity of the model estimation results are the psychometric properties of the measures in that model. Whereas one-item measures are not inherently defective (Scarpello & Campbell, 1983), they are of concern because of their unknown reliability. Thus, before proceeding with model testing, evidence was sought for the stability across time of the single-item measures in our model by assessing their test-retest reliability.

The test-retest method of assessing reliability involves the administration of measures to the same group of people on two or more occasions, with a specified time interval between administrations. In fact, a critical determination in the use of the test-retest method is the precise time interval between testing occasions, because too short of an interval can introduce memory effects and too long of an interval can increase the likelihood of true score changes (Ghiselli, Campbell, & Zedeck, 1981). In light of the types of measures used in this study, a one-week time interval between administrations was selected in order to minimize these limitations.

In order to examine the test-retest reliability of the single-item measures in this study, data were gathered from 57 graduate and undergraduate students in two personnel management courses. Students were given a performance appraisal exercise which included a detailed three-page scenario of an employee performance incident and a series of questions regarding that employee's work behavior and performance. Students were asked to assume the role of a manager who supervises several employees. The task is to review the employee data sheet and the performance data summary information provided
on a particular subordinate and evaluate that person's performance and work behavior. Specifically, after reading the scenario and reviewing the data provided, students were asked to respond to questions regarding the opportunity to observe the subordinate's performance, the degree of liking or affect toward the subordinate, performance rating, and inference about the subordinate's self-rating of performance.

One week later, the identical procedure was repeated. Before completing the survey, however, subjects were asked to indicate on a 1 (I remember very little of last week's exercise) to 4 (I remember almost all of last week's exercise) scale assessing the degree to which they remembered the material from the previous week. Test-retest reliability coefficients were computed as the correlations between the responses to the respective measures at two points in time, partialling out the amount each subject remembered from the previous week's exercise. The test-retest coefficients were as follows: opportunity to observe subordinate's performance = .72; degree of liking or affect toward the subordinate = .81; performance rating = .67; inference about the subordinate's self-rating of performance = .64. These results suggest the single-item measures possess adequate reliabilities.

**Covariance Structure Model**

To test the hypothesized causal model (Figure 1), a covariance structure model was estimated. Covariance structure models, most commonly estimated by the LISREL software package (Joreskog & Sorbom, 1989), allow the joint specification and estimation of the structural model hypothesized to account for the observed data (Long, 1983). Because LISREL incorporates structural equation modeling techniques into the algorithm, this allows tests of models alternative to the hypothesized model.

It is essential, with covariance structure models, to first examine the overall fit of the model. If the model does not fit the data acceptably, the overall hypothesis that the model is an accurate representation of the data is rejected. In such cases, the coefficients estimated in the model can be biased due to relevant omitted causes, and thus are
meaningless (James, Mulaik, & Brett, 1982). Several statistics provide information on the fit of the model. The most widely used measure is the chi-square ($X^2$) statistic. Non-significant $X^2$ statistics indicate that the model fits the data very well (Bollen, 1989). Another use of $X^2$ is to examine the ratio of $X^2$ relative to the degrees of freedom ($df$; Hoetler, 1983; La Du & Tanaka, 1989). Marsh and Hocevar (1985) and Carmines and McIver (1981) have suggested that a $X^2/df$ of 2 or less suggests a good fit. This standard has subsequently been widely employed (Ashforth, 1989; Brooke, Russell, & Price, 1988; Schmitt, Coyle, White, & Rauschenberger, 1978). Other conventional fit statistics include the goodness-of-fit index, adjusted goodness-of-fit index, root-mean-square-residual, and coefficient of determination ($R^2$). Goodness-of-fit indices and adjusted goodness-of-fit indices above .90 and .80, respectively, usually imply an adequate fit (Mumford, Weeks, Harding, & Fleishman, 1988). When a correlation matrix is used as input, root-mean-square-residuals at or below .10 imply a reasonable fit (Mumford et al., 1988; Vance, MacCallum, Coovert, & Hedge, 1988). It is important to keep in mind, however, that the levels judged acceptable for fit statistics are simply experiential rules of thumb since the distributions of most of these statistics are unknown.

**LISREL Results**

Table 1 presents the means, standard deviations, and intercorrelations of the variables used in the analysis. Although the sample size for the covariance structure analysis is small, Bentler (1985) suggested that a sample size to parameter ratio of 5 or more is sufficient to achieve reliable estimates in maximum likelihood estimation. Since the sample size to estimated parameter ratio in the present study was 6.8:1, the sample size was considered adequate for the analyses (Brooke et al., 1988).

Insert Table 1 about here
By the criteria discussed earlier, the fit statistics displayed in Table 2 demonstrate that the hypothesized model well represents the data. The $X^2$ statistic, with a value of 13.67 with 24 degrees of freedom, is not significant.

Figure 2 provides the maximum likelihood parameter estimates of the hypothesized model. The figure indicates that most hypothesized links in the model were supported. Specifically, demographic similarity positively influenced supervisor affect toward the subordinate. The more similar the supervisor and subordinate were with respect to age and experience, the more the supervisor reported liking the subordinate. Supervisor-subordinate work relationship positively influenced supervisor affect toward the subordinate. The better the supervisor and subordinate worked together (as reported by the subordinate), the more the supervisor reported liking the subordinate. Supervisor affect toward the subordinate, in turn, positively influenced supervisor rating of subordinate job performance. A supervisor who liked a particular subordinate was more likely to issue a positive performance rating than a supervisor who did not like a particular subordinate. The opportunity of the supervisor to observe subordinate performance positively influenced performance rating. Supervisors who had greater opportunity to observe subordinate performance issued more positive ratings than those who had less opportunity to observe. Supervisor inference of subordinate self-rating of job performance positively influenced supervisor's evaluation of subordinate job performance. The higher supervisors believed subordinates had evaluated their own job performance, the more likely they were to issue positive performance ratings.
Only two of the hypothesized links in the model were not significant. Supervisor's span of control did not significantly influence performance ratings. Also, supervisors' experience did not significantly influence their ratings of subordinate job performance. Finally, both demographic similarity and supervisor-subordinate work relationship exerted significant indirect effects on performance ratings as mediated through supervisor affect toward the subordinate, although the magnitudes of the effects (.047 and .053, respectively) were quite modest.

Even though the hypothesized model fit the data very well it is possible that other models might fit the data at least as well. Hayduk (1987) encouraged researchers to test alternative, particularly nested, models. Nested models address the issue of whether the decrease in $\Delta^2$ between the hypothesized model and the model with an additional causal link added is significant. If so, the hypothesis that the original model best represents the data is rejected. The proper model should include the added causal link.

Several added causal links, although not hypothesized, seemed reasonable to investigate. It is possible that the relationship between supervisors' inference regarding subordinates' self-rating of performance and supervisor rating of subordinate performance was observed because subordinates who rated themselves highly were truly high performers. In such a case, supervisor inference regarding subordinate self-rating of performance would be confounded with actual performance. While measures of true performance are difficult if not impossible to obtain (Bernardin & Beatty, 1984), as are objective measures of performance for nurses, we did collect data on subordinates' self-rating of performance. This controls for how the subordinate rates their own performance, which ostensibly bears some relationship to true performance (Vance et al., 1988). Adding a link from subordinate self-rating of performance to supervisor rating of subordinate performance did not significantly improve the fit of the model (decrease in $\Delta^2 = 0.34$; decrease in $df = 1$; ns). Further, it did not change the significance of any coefficient in the model, including supervisor inference regarding subordinate self-rating of performance.
Thus, it appears that the effect of supervisor inference regarding subordinate self-rating of performance on performance rating is not confounded by subordinate's own performance rating.

Controlling for subordinates' self-rating of job performance also reduces the possibility that subordinates may have been biased in evaluating the supervisor's opportunity to observe their performance, which was evaluated from the perspective of the subordinate. For example, subordinates who received a poor performance rating may respond that the supervisor rarely had the opportunity to observe their job performance as a way of rationalizing a rating that was too low in their judgment. However, since adding subordinates' self-rating of performance to the model did not change the result, this possibility seems unlikely. It is the supervisor's inference of what the subordinate believes regarding their own performance, despite what the subordinate may actually believe, that influenced supervisor rating of subordinate performance.

Another potential model is that ease of observation may affect supervisors' rating of subordinate performance through supervisor affect toward the subordinate. This may occur because propinquity or physical proximity often leads to attraction (Byrne, 1961; Saegert, Swap, & Zajonc, 1973). Thus, the more interaction a supervisor has with a particular subordinate, the more he or she may like that subordinate. However, adding a link from span of control to supervisor affect toward the subordinate did not result in a significant increase in fit (decrease in $\chi^2 = 0.74$; decrease in df = 1; ns). A similar result was observed with respect to opportunity to observe (decrease in $\chi^2 = 0.54$; decrease in df = 1; ns). Finally, it was argued that demographic similarity and supervisor - subordinate work relationship affect performance rating only as mediated through affect. In fact, adding direct links from these two variables to performance rating did not result in a significant improvement in model fit (decrease in $\chi^2 = 3.45$; decrease in df = 2; ns). Given the number of models tested, the hypothesized model appears to have been correctly specified and correctly models the social contextual effects included in this study.
DISCUSSION

Traditional conceptualizations of the performance rating process have implicitly assumed a positivistic orientation, with performance characterized as a knowable and observable objective reality, and the performance rating as a reasonable reflection of that reality. In the last decade, performance appraisal research has shifted away from a focus on instrumentation to a focus on psychological variables that underlie the appraisal process. Considerable research in the past 10 years has investigated the role of cognitive processes in performance evaluation. However, researchers have issued a call for more research on social and situational influences on the performance rating process (Dipboye, 1985; Ilgen & Favero, 1985; Mitchell, 1983; Nathan et al., 1991; Wexley & Klimoski, 1984). Little empirical work has addressed these concerns, and the research that has been conducted has tended to investigate individual elements in isolation.

Only quite recently has performance rating theory recognized the importance of the social context (Mitchell, 1983), and the notion that supervisor ratings of subordinate performance may be more a socially constructed reality (Ferris & Judge, 1991). Because the social context is admittedly multidimensional (Ferris & Mitchell, 1987), and the various dimensions or components are not believed to be necessarily orthogonal, efforts to representatively reflect social context effects must simultaneously incorporate multiple social and situational factors in order to capture the dynamics and totality of their impact. The present study represented an effort to address these needs by proposing and testing a model of social influence in the performance rating process that employed a number of social and situational influences.

Several specific social and situational influences on performance ratings were identified. Demographic similarity significantly influenced supervisor affect toward the subordinate. This supports the similarity - attraction paradigm (Byrne, 1969). Pfeffer (1983) and Tsui and O’Reilly (1989) have contended that the similarity - attraction paradigm generalizes to demographic characteristics. Our results support that proposition,
although a more diverse measure of demography would have been desirable. The effect of demographic similarity on supervisor affect toward the subordinate poses implications for the performance rating process, since demographic similarity exerted a significant (albeit modest) indirect effect on performance rating as mediated through supervisor affect toward the subordinate.

The supervisor-subordinate work relationship also exerted a significant effect on supervisor affect toward the subordinate. This is consistent with arguments advanced by Nathan et al. (1991) and Wexley and Klímoski (1984). We hypothesized that the work relationship influenced performance rating only as mediated through supervisor affect toward the subordinate. In fact, the supervisor-subordinate work relationship did influence performance rating, but only indirectly as mediated through supervisor affect toward the subordinate. Future research investigating the effects of the supervisor-subordinate work relationship on performance ratings and supervisor affect toward the subordinate is called for based on these results.

Previous researchers have demonstrated the effect of supervisor affect toward the subordinate on performance ratings (Cardy & Dobbins, 1986; Kingstrom & Mainstone, 1985; Tsui & Barry, 1986; Wayne & Ferris, 1990). There appear to be potential cognitive, information processing implications of the linkages between supervisor affect toward subordinate and performance ratings. DeNisi and Williams (1988) suggested that affect influences the processing of performance information, and Isen and Baron (1991) shed light on this suggestion in their conceptualization of positive affect and its role in organizational settings. They argued that positive affect facilitates the recall of information stored in memory which possesses a positive affective tone. Thus, positive affect toward a subordinate should result in the supervisor recalling more positive performance-related behaviors and evaluative impressions, which should lead to the supervisor rating the subordinate’s performance highly. The opposite pattern would be expected for negative
affect, although dislike has been found to demonstrate somewhat weaker effects on such evaluations (Sinclair, 1988; Tsui & Barry, 1986).

Supervisor experience, contrary to our hypotheses, did not exert a significant effect on performance rating. Some research has suggested that experience does influence performance ratings (Landy & Farr, 1980), perhaps reflecting a "toughness - leniency" progression that supervisors move through as they gain experience as a supervisor. However, our results are not supportive of this hypothesis. It would be useful for future research to consider directly the psychological process that may cause experienced supervisors to issue more favorable ratings (several possibilities were suggested in this paper), and under what conditions this process operates (Landy & Farr, 1983).

Supervisor opportunity to observe subordinate job performance significantly influenced performance ratings. Consistent with our hypothesis, greater opportunity to observe resulted in higher performance ratings. Ostensibly, this result was found because opportunity to observe results in greater ability to confirm the supervisor's hypothesis of high performance (Snyder & Swan, 1978) given the general motivation to issue positive ratings reviewed earlier. This result and explanation needs to be directly substantiated by future research, however. If confirmed, it may call into question the hypothesis that greater opportunity to observe only results in greater accuracy. Instead, if the results of the present study are valid, greater opportunity to observe accentuates the positive bias already extant in performance ratings. Obviously, the ideal solution to such a phenomenon would not rest in observing subordinates less, but in eliminating the motivation of managers to engage in a confirmatory search for positive information. This call previously has been issued by others (Bass, 1956).

Supervisors' span of control did not significantly influence performance rating. The difference between span of control and opportunity to observe in reflecting ease of observation may explain this result. As noted earlier, there are reasons why low span of
control does not imply perfect opportunity to observe; this may explain its weak effect on performance ratings.

Finally, supervisor inference regarding subordinate self-rating of performance significantly influenced supervisor rating of subordinate performance. Consistent with Klimoski and Inks (1990), the susceptibility of the supervisor to the wishes of subordinates (i.e., accountability) is manifested by yielding to subordinate's self-rating of performance. This accountability pressure produces distortion in performance ratings in terms of higher evaluations. Such an effect might be observed, according to Klimoski and Inks, because supervisors wish to avoid conflict, and thus they will be more motivated to issue positive performance ratings when they believe that is what the subordinate expects. Practically and scientifically, it is important to understand what causes supervisors to make inferences regarding subordinate's self-rating of performance. This is particularly true in light of the fact that our results suggest that supervisor inferences exert a significant effect on performance rating even when controlling for the actual self-assessment made by subordinates.

Limitations and Contributions

There are several limitations to this study. Ideally we would have employed a multidimensional measure of performance. Such a measure probably would have yielded a more accurate measure of performance. However, several points should be kept in mind about single-item measures of performance. First, when used for personnel decisions, it is not atypical for performance to be measured by single-item, global measures in organizations (Bretz, Milkovich, & Read, 1991). Thus, our measure should be externally valid, closely resembling the actual evaluation process (although not an ideal process) in organizations. Second, the test - retest reliability estimates of the single-item measures revealed that the measures possessed acceptable stability. Thus, the use of single-item measures is less of a concern since their reliability was demonstrated.
Another limitation of the present study is that the data were cross-sectional in nature. Ideally, the variables would have been measured over time to ensure that our causal ordering was correct. Whereas we have tested alternative models that consider this issue, future research investigating these relationships over time would make a contribution.

A strength of the present study was that measures in the model were obtained from two sources, supervisors and subordinates. This reduces the possibility that relations were observed between the constructs due to common method or single source covariance. Furthermore, considering a number of social and situational influences simultaneously reduces the possibility that the results were biased due to omitted variables (James et al., 1982). These factors should allow more confidence to be placed in the validity of our interpretations of the results.

The present study contributed to understanding of social influence in the performance rating process in several ways. First, overall support for the effects of several social and situational factors on performance ratings was found. Mitchell's (1983) trichotomy of social and task factors also generally was supported. Social influence is more than a single isolated effect; it is manifested by an array of contextual and interpersonal elements. While the present study is certainly not a comprehensive survey of social and situational elements, the number of factors considered improves upon past research by representatively reflecting the multidimensional and dynamic nature of the social context. Cumulatively, the findings suggest that the social context does impact the performance rating process. Several of the specific links in the model tested also are of interest. There is a scant literature on supervisor opportunity to observe subordinate performance and supervisor inference regarding subordinate self-rating of performance. The significant effect of these variables is interesting in its own right, and should stimulate future research on these variables.
In sum, the present study investigated the effect of the social context on the performance rating process by testing a causal model of social influence that employed several under-investigated variables. By concurrently considering the effects of several key aspects of the social context, the present study found support for the efficacy of social and situational processes in influencing performance ratings. Hopefully, future research will continue along these lines by expanding the influences studied and providing a more in depth assessment of the causal relationships among these variables, and thus a more informed understanding of the performance rating process.
REFERENCES


TABLE 1

Means (M), Standard Deviations (SD), and Correlations of Study Variables\(^a\)

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<tr>
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<th>M</th>
<th>SD</th>
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<td>-.01</td>
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\(a\) **Performance rating** = supervisor rating of subordinate job performance; **supervisor affect** = supervisor affect toward the subordinate; **work relation** = supervisor - subordinate work relationship; **opportunity to observe** = supervisor opportunity to observe subordinate job performance; **supervisor inference** = supervisor inference regarding subordinate self-rating of job performance.
TABLE 2

Fit Statistics of Structural Model Estimate

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<td>$R^2$ (Performance)</td>
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FIGURE 1
Hypothesized Model of Social Influence in the Performance Evaluation Process

- Supervisor Span of Control
- Demographic Similarity
- Supervisor Experience
- Supervisor Affect Toward Subordinate
- Supervisor-Subordinate Work Relationship
- Opportunity to Observe Subordinate Job Performance
- Supervisor Inference of Subordinate Self-Rating of Job Performance

Supervisor Rating of Subordinate Job Performance
FIGURE 2
Structural Estimates of Hypothesized Model

Demographic Similarity

Supervisor Span of Control

Supervisor Experience

Supervisor Affect Toward Subordinate

Supervisor Inference of Subordinate Self-Rating of Job Performance

Inference of Subordinate Self-Rating of Job Performance

Opportunity to Observe Subordinate Job Performance

Supervisor Rating of Subordinate Job Performance

* p < .05
** p < .01 (one-tailed)

Standard errors are in parentheses