

PROCEDURAL JUSTICE AND PERFORMANCE APPRAISAL

A TEST OF GREENBERG'S MODEL

by

Amy L. Russell

Thesis submitted to the Faculty of the

Virginia Polytechnic Institute and State University

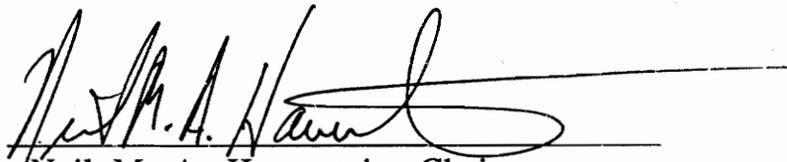
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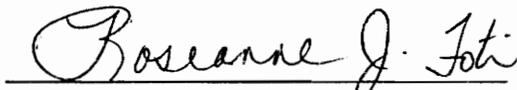
MASTER OF SCIENCE

in

Psychology

APPROVED:


Neil M. A. Hauenstein, Chairperson


Roseanne J. Foti


Sigrid B. Gustafson

January, 1993

Blacksburg, Virginia

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(Abstract)

The present field experiment investigated the effect of Greenberg's procedural justice model on a performance appraisal system. Greenberg's justice elements were implemented in an appraisal system which previously did not contain these factors. Including these elements increased employee satisfaction with the appraisal system. The model proposed to account for this increase in satisfaction did not appropriately fit the data. Further methods for assessing possible causal paths were investigated. Several methodological considerations are proposed for future research.

ACKNOWLEDGMENTS

I would like to sincerely thank the members of my committee for their help and guidance in this project. Neil Hauenstein, Roseanne Foti, and Sigrid Gustafson were all supportive of this endeavor. I am lucky to have had each one on my committee. In particular, I would like to thank my advisor, Neil Hauenstein. He was always there to help me decide whether to run with the ball or punt. I would also like to thank R.J. Harvey and Gail Kennedy for being so unselfish with their time and talents. This entire project ran much smoother for their efforts. I am also grateful for three very special friendships I have made during my time in Blacksburg. If it were not for Maureen Walsh, Darren Ritzer, and Dwayne Norris I feel certain I would not have gotten this far. Without their laughter sessions this project would have been much more painful than it was.

I would like to recognize and thank my family for their support, in particular my parents, Glenn and Gail Russell, and my brother, Wesley Russell. Each has in their own way helped me get through this thesis process.

Last, but certainly not least, I want to thank my "significant other", David Darden. During my ever increasing number of near nervous breakdowns, David was always there to help calm me down and put my life back into perspective. I owe David a large part of my thesis and my mental health and I am lucky to have him by my side throughout my graduate career.

TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGMENTS.....	iii
INTRODUCTION.....	1
LITERATURE REVIEW.....	7
SUMMARY AND HYPOTHESIS.....	29
METHOD.....	33
ANALYSIS.....	36
RESULTS.....	39
DISCUSSION.....	45
REFERENCES.....	51
APPENDIX A.....	56
APPENDIX B.....	57
APPENDIX C.....	58
TABLES 1-10.....	60

Introduction

Performance appraisal systems can be found throughout today's organizations. Organizations desire a way to evaluate their employee's performance in order to make administrative decisions and to develop their employees. Appraisals can be performed by supervisors, peers, and subordinates (Hall et al, 1989). The rationale behind peer ratings is that peers may actually be around an employee more often than the supervisor during the typical work day. Therefore the peer may have a better idea of how well a given employee performs. Unfortunately, issues such as friendship cloud the credibility of a peer rating. The subordinate ratings allow a totally different perspective to be taken into account when looking at an employee's performance. However, subordinates may be afraid to give their supervisor a low rating. Therefore, the most popular type of appraisal system uses the supervisor as the rater. Whoever is technically in charge of an employee is responsible for determining how well an employee is performance on any number of relevant dimensions.

Appraisal may be completed using any number of rating formats. Among the most popular rating formats are the graphic rating scale, the behaviorally anchored rating scale, and the forced choice rating scale. Although the research is inconclusive as to what method is the best one to use, employees as a whole are disgruntled with the entire appraisal process (Kleiman, Binderman, & Faley, 1987). Employees do not enjoy being evaluated nor do employees like to evaluate others. But, because of the ever prevalent use of

performance appraisal in organizations and the need for the objective for which appraisals are designed, appraisal systems are unlikely to leave organizations anytime in the near or distant future. Therefore, research has started to look for methods of improving the efficiency of appraisals and to enhance employee satisfaction with the evaluation process.

In order for an appraisal system to work effectively, the employees involved must perceive the system to have a positive impact for them within the organization (Daley, 1990). Additionally they must believe that their supervisor is handling the appraisal process correctly. A good system loses its effectiveness if it is not properly carried out. Ideally employees should have confidence in the system and their supervisor. This confidence in turn leads to satisfaction with the appraisal system and ensuing decisions.

The supervisor plays a large role in maintaining and improving employees satisfaction with the appraisal system since they are so deeply involved with the process. Employees typically want to know what the process entails and how it will affect them. It is up to the supervisor to relay this information to their subordinates thus diminishing any apprehension felt about the process. Communication within the organization, both upward and downward, is critical to performance appraisal effectiveness (Dorfman, Stephan, & Loveland, 1986).

Understanding employee's perceptions about the performance appraisal system is another key aspect to improving efficiency and satisfaction. Implementing the factors and ideas the employees

will help the employees to understand and accept the system. The utmost desire of employees is to be allowed to participate in the appraisal process at every level (Organ, 1988). This participation includes soliciting input, discussion of the performance appraisal system, continuous feedback, and personal control. Employees want the supervisors and administrators to ask their opinions about performance and ratings before and final appraisal decisions are made. The entire appraisal system needs to be discussed with the employees so there is a complete understanding of the system and its' objectives. Feedback about the system and an individuals' progression should be continuous and constructive. Finally, the employees need to feel they have a sense of control within the system. Having a choice among aspects of the system gives employees satisfaction and confidence with a system.

Performance appraisal is of increasing importance within organizations because of its relationship with pay allocation. With increasing frequency organizations are turning to merit pay systems which link pay increases with performance appraisal ratings (Farh, Griffeth, & Balkin, 1991). Since pay increases are of importance to employees, the system by which these increases are determined comes under scrutiny. Because of this connection, there is a direct relationship between employees' satisfaction with the appraisal system and pay satisfaction.

Satisfaction with an appraisal system is tied to the fairness of the system (Greenberg, 1987). Fairness within organizations can be broken into two categories: distributive justice and procedural

justice. Distributive justice refers to fairness of a particular outcome. Procedural justice is concerned with the fairness of the decision making process. Distributive justice has been studied more frequently, with the assumption that employees are concerned with decision outcomes. Recently, it has become apparent that employees are also concerned with the procedure involved in making performance appraisal decisions. Greenberg (1986) looked at employees' perceptions of performance appraisal fairness in terms of procedural justice. From this research, Greenberg designed a model to increase employees' satisfaction with the evaluation process.

According to Greenberg, workers (when being evaluated) want: the supervisor to solicit input prior to the evaluation, two-way communication between the subordinate and the supervisor, the ability to challenge/rebut the evaluation if necessary, a constant application of standards, and rater familiarity with the ratee's work. By soliciting the employees' input the subordinate feels a part of the process and the supervisor can gain added information. Two-way communication increases the subordinates' understanding of the appraisal system and can make both parties feel more at ease with the evaluation process. Employees desire to challenge an evaluation rating without concern for the ramifications. If this opportunity is afforded, employees then will feel a greater sense of fairness. A consistent application of standards is also essential in a just evaluation process. Decisions need to be made fairly and with an adequate explanation of decisions. The last component of Greenberg's model is the necessity for the rater to have adequate

knowledge of the ratee's performance. In order for employees to feel comfortable with their performance ratings they must believe the rater understands and has observed their position. The implementation of these procedural factors should improve employees' satisfaction with the process and increase system efficiency.

The purpose of this study is to test Greenberg's evaluation model in the field. Greenberg came up with factors which organizational supervisors say are important, but this idea has never been tested in the field. It is essential to determine if implementing these factors actually increases employees' satisfaction within the appraisal system. If these factors actually do increase satisfaction, then it will be worthwhile for organizations to invest in changing their appraisal system. If it is determined that implementing these factors does not actually increase employee satisfaction, then further research needs to be performed in order to determine what factors do have an impact on employees' satisfaction with appraisal systems.

The organization to be used in this study previously used a performance appraisal system which did not include Greenberg's five appraisal factors. A new system was designed for the organization based on Greenberg's model. All five factors stressed by Greenberg to increase employee satisfaction with the appraisal process were implemented in the new evaluation process.

If these factors are implemented properly in the evaluation system, employees should see the system as being fair and therefore be satisfied with the system. However, if the factors are present in

the system but not used properly, employee satisfaction will not be strengthened by the evaluation procedure. The presence of these procedural factors can be maintained through the use of employee participation, communication, self-appraisals, and feedback. The techniques tie directly into Greenberg's (1986) model of procedural justice.

LITERATURE REVIEW

Performance Appraisal

Performance appraisal systems are prevalent in today's organizations. These systems provide organizations with information for a variety of personnel decisions. Appraisal systems are designed to enable organizations to retain, motivate and develop productive employees (Mount, 1983). Unfortunately, appraisal systems do not always satisfy the objectives for which they are designed.

Performance appraisal systems are seen to be of great importance to human resource management but they are "...still widely regarded as a nuisance at best and a dangerous will at worst"

(Starling,1982,p.343). Overall, performance appraisal is filled with uncertainty and negative perceptions. In present performance appraisal research, concern is being expressed over how to design new systems or improve old ones in order to make them more effective.

Dorfman et al (1986) suggest that the purpose of performance appraisal can be broken down into two key areas: administrative and developmental. The administrative factors include providing salary increases, promotions, and terminations. The developmental aspect deals with assisting the subordinate, giving constructive feedback, and counseling the employees. Other uses of performance appraisal include reviewing past performance, rewarding past performance, and linking rewards to performance (Hall, Posner, & Harder, 1989), comparisons of worth (Tabor & Peters, 1991),

providing incentives despite failure, motivating performance and directing performance (Brumback, 1988).

Cleveland, Murphy, and Williams (1989) looked at the multiple uses of performance appraisal within organizations. They determined that features of the organization (ex. climate and culture) and the environment have a strong impact on the way performance appraisal is performed within the organization. The system must be well matched with the organization it is to be used in in order for the system to be effective. Performance appraisal methods are not interchangeable across organizations or even across job types. The method chosen must cover diverse job tasks, workload/time demands, revised jobs, changeable work, interpersonal contacts, interdependent tasks, personal attributes, compensation, and stress; all of which are unique to the organization and jobs in question (Tabor & Peters, 1991). Basically performance appraisal needs to be position specific. To be position specific, there needs to be detailed requirements for performance of an individual in a particular positions at a particular time (Brumback, 1988).

Hall, Posner, and Harder (1989) suggest seven key actions for improving performance appraisal systems by matching actual organizational practices with performance appraisal theory.

- 1) Encourage managers to conduct frequent work counseling sessions.
- 2) Explicitly reward managers to conduct frequent work counseling sessions.

- 3) Provide process skills training that is directly related to performance appraisals.
- 4) Link performance appraisal process to companies human resource planning.
- 5) Focus performance appraisal more on future behavior.
- 6) Establish explicit performance goals in the performance appraisal process.
- 7) Build evaluative feedback loop into the performance appraisal system.

The point of including these aspects into the appraisal system is to increase the efficiency of the system itself and to increase the employees acceptability of the system. Employees' acceptance of and satisfaction with the performance appraisal method used is essential to the success of the system within the organization.

Employee Satisfaction and Acceptance

Employees' satisfaction and acceptance of the performance appraisal system and pay structure of an organization is strongly related to the behavior of their immediate supervisor. From a traditional leadership perspective, supervisor's behavior is often broken down into two major categories: consideration and initiation of structure (Fleishman & Harris, 1962). Consideration is a mutual trust, respect, and warmth between the supervisor and the subordinate. This type of leadership behavior emphasizes a concern for group member's needs. Supervisors who initiate structure organize and define group activities and his or her relationship to the

group. This behavior emphasizes overt attempts to achieve organizational goals. Employees who are the most satisfied with their performance appraisal outcomes and subsequent pay increases are those employees whose supervisors are rated high on consideration behaviors and high on initiation of structure (Castaneda & Nahavandi, 1991). To be the most effective in performing an appraisal interview, the supervisor must be certain to include both types of behaviors.

Besides monitoring supervisor behaviors, employers need to find out from their employees what aspects of the appraisal they are satisfied with and what improvements could be made to increase satisfaction. The use of employees' attitudes is an appropriate measure of performance appraisal effectiveness (Daley, 1990). One aspect of performance appraisal systems which is often overlooked is the employee's perceptions of the system (Landy, Barnes, & Murphy, 1980; Dipboye & Pontbriand, 1981). According to Latham and Wexley (1981), "...employee's opinions regarding the appraisal process are critical to the long term effectiveness of the system"(p. 202). In order for a system to work within an organization, the employees of the organization must understand and accept the system. The trend with performance appraisal systems should be to determine what aspects of the system are perceived by the employees to be important, and these aspects should be given greater weight in the appraisal process.

A goal of organizations should be to instill employees' confidence in the performance appraisal process. Employees who are

confident in the process will be more committed to the process. Employees want periodic appraisal, good use of results (ex. training, promoting, rewarding), employee participation (Daley, 1990), discussion of the performance appraisal system (Dorfman, 1986), fairness within the system (Organ, 1988), and choice (Lee & Martin, 1991). Employees want to be involved with the process; the more involved the employees are, the more committed the employees are likely to be. If the employees are involved, then the employees are likely to see the process as being fair. If unfairness is perceived by the employees then a fundamental redefinition of the relationship between the individual and the organization is evoked which in turn leads to a lack of trust (Organ, 1988).

In order for employees to believe the system used within their organization is fair, they need to have confidence in their supervisor, trust in the administration of the system, and hold relevant discussions about appraisal with their supervisor (Kleiman, 1987). By increasing communication between the rater and the ratee regarding job content, performance criterion, and mutual expectation, the ratee believes he or she is being given the opportunity to participate in the system. This participation gives the ratees a greater sense of control over the performance evaluation.

Another area of performance appraisal where employees' perceptions are important is in the area of performance feedback. Performance feedback can perform a motivational function for the employees if it is used properly (Ilgen, Fisher, & Taylor, 1979). The source of the feedback must be credible and a person of power

within the organization, while the feedback itself should contain valuable information and concern a useful function. Regardless of how the feedback is intended to be used, it is the employee's perceptions about the feedback that affects the employee's feelings about the performance appraisal system. Acceptance of the feedback clearly depends on the perceived nature of the feedback, the message itself, and the feedback's source.

Additionally personal control for the employees should be imbedded in the feedback whenever possible. Personal control refers to the extent to which the individual feels he or she has chosen freely to undertake some behavior or set of behavior (Meyer, Paunomen, Gellatly, Goffin, & Jackson, 1989). Feedback must be accurately perceived by the recipient if it is to affect responses as it is intended to. The rater must take into account individual differences in reaction to feedback when the performance evaluation is being discussed.

Pay Satisfaction and Performance Evaluations

Performance appraisal systems and their acceptance by employees are of increasing importance because of their link with merit pay systems. The underlying premise of merit pay systems is that high performers should be paid more than low performers. If employees see a direct connection between their performance and their salary, individuals will be motivated to work harder and will be more satisfied with their pay. This has become a major goal of organizations. Merit pay raises are commonly given annually or semi-annually based on an employee's performance. These raises

are generally given on the basis of employee evaluations (Deadrick & Scott, 1987). In a survey of merit pay systems, Deadrick and Scott found that ninety-seven percent of those programs studied used a supervisory performance evaluation to determine pay increases. Because of the organization's reliance on the appraisal system to make the merit pay system work effectively, the employees' perceptions of the appraisal system are of increased importance.

The perceived adequacy of the pay system is the extent to which pay is perceived to be based upon performance. According to Lawler (1971) pay satisfaction is a function of the perceived amount of pay that the employees believe should be received less the amount that is received. Pay satisfaction is a multidimensional construct, one facet of which is the structure of the pay system. Key components of pay system adequacy are the appropriateness of pay criteria, understanding pay criteria, accuracy of assessment, and adherence to policy (Heneman, Greenberger, & Strasser, 1988). It has been suggested that satisfaction reaches an apex when equity is perceived. Therefore an equitable distribution would lead to pay satisfaction (Sweeney, 1990).

This implies employees focus mainly on the reward itself; an outcome orientation. However, evidence suggests that a purely outcome oriented perspective misses other interests of employees. Fahr et al (1991) found that simply having a choice involved in the pay plan received increased employees' satisfaction. Once employees made a choice they stayed committed to it and therefore were more satisfied than if no choice had been offered. Taber and Peters (1991)

suggest that pay satisfaction is positively related to the ratings of completeness of the job evaluation system. If employees feel the evaluations have been completed fully and properly they will be more satisfied with the ensuing pay increase. These components imply the importance of individual perceptions in conjunction with organizational justice.

Organizational Justice

A common conception is that employee acceptance of performance appraisal systems is linked to the belief that the system characteristics are consistent with a fair process. If employees believe an appraisal system is fair they are more likely to support the system. Among system characteristics that have been researched are the opportunity for participation (Evans et al, 1988; Pincus, 1986), relevance of appraisal factors (Eberhardt & Pooyan, 1988), and continuous feedback (Starling, 1982; Inderrienden et al, 1988). This emphasis on fair processes indicates the desire for organizational justice. Greenberg (1987) came up with a taxonomy of organizational justice theories which breaks the theories into four distinct categories. A theory may be reactive or proactive and either process or content oriented. A reactive theory of justice focuses on how individuals try to escape from or avoid perceived unfair states. A proactive theory involves actively trying to promote justice. A process approach to justice involves how outcomes are determined. The content approach deals with the fairness of the distribution of outcomes. Though organizational justice research has taken many directions, a distinct dichotomy has resulted: distributive justice and

procedural justice (Greenberg, 1987). Though this dichotomy has emerged, as a general rule employees will focus on both types of justice to some extent. Howard & Tyler(1986) has found that . distributive and procedural justice issues are more important to employees in regard to performance appraisal than other unfairness issues are concerned. Fairness tends to be more of an issue in relationship of intermediate emotional intensity, which is quite often the relationship found in organizations . In this type of relationship there are no really strong feelings but the employees reap the benefits from the interaction.

Distributive Justice. Distributive justice deals with the fairness of the outcome of the decision process. Adams' (1965) equity theory is the most well known of the theories of distributive justice theories. Under equity theory one focuses on the individual's perceptions of outcomes received in relation to the inputs of the individual. Therefore, underpaid workers should be less productive and less satisfied than equitably paid workers and overpaid workers should be more productive and less satisfied than equitable paid workers. Equity theory is an example of a "reactive content" theory.

Lerner's (1982) "justice motive theory" is another example of a distributive justice theory. Under the justice motive theory, the form of justice that will be followed in making allocation decisions will depend on the nature of the relations between the parties involved in conjunction with their focus of the parties on each other as individuals or as occupant of positions (Greenberg, 1987). Lerner

identifies four principles that are often used in making allocation decisions:

- 1) Competition - allocations based on the outcome of performance
- 2) Parity - equal allocations
- 3) Equity - allocations based on relative contributions
- 4) Marxian Justice - allocations based on needs.

In spite of the success of distributive justice research, recently it has been determined that perceptions of justice do not only concern outcomes or rewards. Individuals are also concerned with the process that determines the outcome or reward. Hence, procedural justice is being studied to complete the organizational justice issue.

Procedural Justice. Procedural justice deals with the perceived fairness of the procedures used in making a decision. Thibaut and Walker (1975), were the first to look at procedural justice. They examined the type of control allowed to disputants and a third party when attempting to resolve a dispute. Each member could have either "process control" or "decision control". Process control is control over the development and selection of information which is used to settle the dispute. Decision control is the degree to which a participant controls the final outcome of the dispute. Five dispute resolution procedures are discussed each of which vary in the type and degree of control each participant has within the process. These procedures are:

- 1) Autocratic procedures - third party has control over processes and decisions;

- 2) Arbitration procedures - third party has control over decision but not the processes;
- 3) Mediation procedures - third party has control over the processes, but not the decisions;
- 4) Moot procedures - third party shares control over processes and the decisions with disputants;
- 5) Bargaining procedures - third party has no control over processes and decisions.

Thibaut and Walkers' theory is an example of a "reactive process theory".

Levanthal (1976, 1980) proposed a different conceptual perspective for looking at procedural justice termed "allocation preference theory". This is an example of a "proactive process theory". Leventhal emphasized reward allocation and proposed that individuals evaluate fairness in terms of specific procedural elements. These elements are:

- 1) Selection of agents - procedures for determining who makes allocation decisions;
- 2) Setting ground rules - procedures for determining and evaluating potential reward and the behaviors necessary to attain them;
- 3) Gathering information - procedures for obtaining and using information about reward recipients;
- 4) Decision structure - procedures for defining the structure of the allocation decision process

- 5) Appeals - procedures for seeking redress against unsatisfactory decisions;
- 6) Safeguards - procedures for ensuring that the decision-making body does not abuse its power;
- 7) Change mechanisms - procedures enabling allocation practices to be altered.

According to Levanthal, individuals evaluate these seven procedural elements using six procedural rules. These procedural rules are:

- 1) Consistency rule - allocation procedures should be consistent across personal and time;
- 2) Bias suppression rule - personal self-interest in the allocation process should be prevented;
- 3) Accuracy rule - decision must be based on accurate information;
- 4) Correctability rule - opportunities must exist to enable decisions to be modified;
- 5) Representativeness rule - the allocation process must represent the concerns of all recipients;
- 6) Ethicality rule - allocations must be based on prevailing moral and ethical standards.

Lind (1990) suggests procedural justice is based around the idea that if the employees have the opportunity to present information relevant to decision making this enhances judgements of fairness by giving the individual "voice". Participation and "voice" provides the opportunity for the employees to have influence on the

goals of the system. Voice enhances organizational fairness by making employees feel more like a member of the group, the system seems more fair, and attitudes about the system improve. Fairness judgements are enhanced by the opportunity to voice opinions even when there is not chance of actually having an impact on the final decision (Folger, 1977). Evidence on this issue has not been fully supportive on the positive ramifications of including voice in the organization. Procedural and distributive justice elements can readily be found in the performance appraisal literature.

Procedural and Distributive Justice and Evaluations. In terms of performance appraisal, distributive justice refers to the fairness of the evaluation relative to the work performed. Distributive justice deals for the most part with appraisal outcomes. Procedural justice is fairness in terms of the actual evaluation procedures. An employee is concerned with how the performance appraisal decision was made as opposed to what the actual decision was. Procedural justice and distributive justice are independent to the extent that it can be demonstrated that an unjust procedure generates a just outcome or a just procedure generates an unjust outcome.

It has been suggested that the perceived fairness of performance appraisals is affected by the performance appraisal outcome (Dipboye & Pooyan, 1981). That is, the higher the rating received, the fairer the system is perceived to be and this implies that distributive justice is more important than procedural justice. Distributive justice within the evaluation frame work deals with the receipt of rewards and scores, the basis of the rewards given in the

system, and how rewards given outside of the system affects employee reaction. The bottom line is how the organization rewards performance. This idea has been tested and studies show that the variance in perceived fairness of the performance appraisal system could not be explained by the rating level an employee received (Landy et al, 1980; Pearce & Porter, 1986). Appraisal favorableness has an effect on the ratee's opinion of the system; but the outcomes effect on the ratee is not overwhelming. Even when outcomes of the evaluation process are partialled out, it has been found that perceived fairness continues to be strongly associated with process variables (Greenberg, 1990). This finding supports the idea that employees are focusing on the evaluation process rather than the evaluation outcome. Therefore procedural justice must be taken into account when looking at employees' perceptions of the performance appraisal system.

Procedural justice within the evaluation framework has to do with giving the employees the opportunity for participation. Participation gives the employees a sense of control. People who have a sense of control within the system are more committed to their institutions, and pay more attention to issues of procedural justice when they evaluate evaluation systems. One way to increase this sense of control is by giving the employees "voice". Folger (1977) stated "...the presence or absence of voice has been shown to affect feelings and actions concerning pay and evaluations." Besides employee participation other areas within procedural justice which can enhance the employees' satisfaction with the system are

consistency across time and persons, accuracy of information, suppression of bias, correctability of decision, representation in decision making body, and the maintenance of ethical and moral standards (Howard & Tyler,).

Greenberg's Model of Procedural Justice

Greenberg (1986) looked at the perceived fairness of evaluations in terms of procedural justice. After looking at the possible procedural characteristics he designed a model to increase employee satisfaction with the evaluation process. The evaluation system is broken into five key procedural factors. Workers, when being evaluated, want: the supervisor to solicit input prior to the evaluation and use that information in the evaluations, two-way communication during the appraisal interview, the ability to challenge/rebut the evaluation, consistent application of standards, and rater familiarity with the ratee's work.

Solicit Input Prior to the Evaluation. Overall, in accordance with procedural justice, employees want to be included and allowed to play an active role in the performance appraisal process. By allowing the employees to participate, the employees are given real control over their own work performance and this signals the employees that the supervisor is being fair (Nathan et al, 1991). One method of including employees in the appraisal process is to solicit input about the evaluation from the employees themselves.

Dipboye and Pontbriand (1981) suggest that employees will have a positive attitude toward the performance appraisal process when they are allowed to participate in the process. If the

supervisor seeks the employees' input in the appraisal, then the employees are more likely to perceive the process as being fair and will accept the process. By soliciting input from the employees, the employees will feel a part of the process and the supervisor may obtain information about the position he/she may not have know about. By including the ratee at this stage of the appraisal process, the subordinate will feel more comfortable discussing the appraisal at later stages with the rater.

Two Way Communication. It is important to remember that performance appraisal reviews do not take place in a vacuum, but occur within the context of the interpersonal relationship between the supervisor and the subordinates (Nathan et al, 1991). There are several ways the process can be improved by incorporating two-way communication between the supervisor and the subordinate in the appraisal process. The relationship between supervisors and subordinates can be improved, agreement on relevant tasks is increased, employees will feel more comfortable with the process itself, and the information and affective constraints inherent in the appraisal process can be lessened.

Pincus (1986) looked at communication within organizations with respect to employees' satisfaction with the organization and the organizational processes. He found, "...the more open, trusting, and participative the supervisor-subordinate relationship is perceived to be by the subordinate, the more satisfied the employee will be with the job and the organization"(p. 397). The climate of the organization

must be conducive to communication between organizational levels; the proper atmosphere must be created for two-way communication (Baker, 1984). If employees feel comfortable discussing aspects of their job with their supervisor and the supervisor is open to subordinate suggestions, the employees are more likely to perceive organizational processes as being fair.

Campbell and Lee (1988) cited information constraints and affective constraints as possible causes of evaluation discrepancies. Information constraints deal with differing cognitions about job requirements. Subordinates and supervisors often do not agree on what the job being appraisal entitles. Affective constraints are the threatening nature of the evaluation system. Neither the subordinates nor the supervisors may feel comfortable with the evaluation process and its consequences. The use of two-way communication and self-evaluations can help to "reduce criterion deficiency by including dimensions that are overlooked by other evaluation sources" (Campbell & Lee, 1988, p. 302). By having consistent two-way communication during the appraisal process the rater and ratee can discuss any differing cognitions regarding job requirements and reach a mutual understanding of what the job entails. Additionally, by feeling free to discuss aspects of the appraisal with one another, the evaluation process itself will not seem as threatening to the rater or to the ratee.

Ability to Challenge/Rebut the Evaluation. The employees want the opportunity to discuss the evaluation with the rater. In this discussion the ratee needs the chance to bring up any problems

he has with the ratings received. One method used to enable the ratee to challenge or rebut the evaluation is through the use of the feedback session.

It is a well established fact that feedback is an integral part of the appraisal process. Feedback can help to increase worker productivity and satisfaction (Eberhardt & Pooyan, 1988; Landy et al., 1982; Pincus, 1986). Performance appraisal feedback is most likely to be accepted by the ratee when appraisals are frequent, there is widespread agreement concerning job duties, feedback is consistent across sources, and there is widespread agreement regarding what constitutes good and poor performance (Murphy & Cleveland, 1991). While these are all important, one aspect that needs to be emphasized is that feedback should occur continuously throughout the evaluation period. Too often feedback, if given at all, is received only one time during the year; when the formal evaluation is performed. Feedback should occur in the form of informal discussions where both the supervisor and the subordinate feel comfortable discussing the employee's performance. The subordinates need to participate in the feedback session, not just the supervisor. It should be made clear to the ratee that during the feedback session he may challenge the ratings or the appraisal process itself without having to worry about negative consequences.

Consistent Application of Standards. All employees want and deserve to be treated equitably. Subordinates expect performance appraisal standards to be enforced consistently both across their own evaluation and across different ratees. Greenberg (1990) looked at

procedural justice in performance appraisal systems in terms of interpersonal treatment and adequate explanations of decisions. Interpersonal treatment refers to the fact that employees want to be treated with courtesy, honesty, and want to be respected by their superiors. Evaluators should consider other's viewpoints and give timely feedback when completing employee evaluations.

As for the second procedural justice component, supervisors should be able to back up evaluation decisions with solid behavioral examples. This is a standard that needs to be incorporated and used with regularity. Evaluation scores should not be given arbitrarily. Decisions need to have sound reasoning behind them and this reasoning should be relayed to the subordinate. One area in which the supervisor needs to ensure all employees are treated equally is during the feedback session. The feedback session needs to be held for all employees, not just a chosen few.

Employees' satisfaction with the appraisal system is increased when feedback and guidance occur continuously throughout the year (Inderrieden et al, 1988). The rater should ensure that all employees take part in a feedback session and are included in informal feedback discussions throughout the year. Unfortunately, many organizations do not take advantage of the feedback process. "The General Accounting Office for the Federal Government asked employees in their survey about the value and frequency of informal feedback discussion with their supervisors. Over eighty percent who had held such discussions believe them to be valuable and helpful.

Most indicated, however, that such discussions never took place” (Starling, 1982, p. 350).

DeGregorio and Fisher (1988) looked to determine how performance feedback from the supervisor can be conveyed to a subordinate in a manner that ensures the subordinates will be satisfied with the process and be motivated to participate in the process. They determined that feedback is the most effective when plans and objectives are discussed between the subordinate and the supervisor, the subordinate has an opportunity to state one's own side in the discussion, and the performance measures are relevant. This same procedure needs to take place consistently across all ratees.

Rater's Familiarity with Ratee's Work. As far as performance appraisal systems are concerned, if subordinates and supervisors work together to identify critical behaviors and job elements, then employee's perceptions of what supervisors used for an appraisal basis will be improved (Eberhardt & Pooyan, 1988). By working together, the subordinates are more likely to feel their supervisors are familiar with their work. If the subordinates believe the rater is familiar with their work, then the ratees are more likely to feel comfortable with the actual evaluation and the appraisal process itself.

Employees often do not have a particularly clear idea of what their supervisor expects of them, and because most performance appraisals occur just once a year, these expectations have a greater

chance of becoming obscured. However, the problem does not lie with just the subordinates. The supervisor may not have a firm grasp on the subordinates' job. This may be due to a lack of observation time on the supervisor's part. Often a supervisor is asked to evaluate a job that he is not truly familiar with. Using self-appraisal and communication can help to minimize information constraints by clarifying roles. By talking to one another and comparing the organization's appraisal forms, the supervisor and subordinate can express what they consider to be relevant aspects of the job. Expectations and job roles can be clearly stated by both groups and discrepancies can be discussed and dealt with in a constructive manner. Not only will the raters become more familiar with the ratee's work through this process, but the subordinates will know the rater is familiar with the job in question.

Self-appraisals are another way to improve the rater's familiarity with the ratee's work. Self-appraisals improve cognitive constraints by simplifying the evaluation task. Getting input on a job from both the employees and the supervisor, it is more likely that both will be working from the same or at least similar schema, which lessens demands on human information processing systems. In order for the supervisor to be perceived as knowledgeable and for feedback to be perceived as accurate, the supervisor must attend to the subordinate's behavior and give explanations for both high and low scores given on performance factors. The more credible the source, in this case the supervisor, the more accurate the feedback is

perceived to be and the more satisfied the subordinates are with the appraisal process and appraisal outcomes (Bannister, 1986).

Rater's familiarity with the rateses' work becomes evident during the feedback section of the appraisal process. The more accurate the feedback, the more knowledgeable about the employee's performance the supervisor is seen to be. The accuracy of the feedback, as perceived by the subordinates, has an impact on the employees' satisfaction with the system. The more knowledgeable about the employees' performance the supervisor is seen to be, the more satisfied the employees will be with their evaluation. In order for the supervisor to be perceived as knowledgeable and for feedback to be perceived as accurate, the supervisor must attend to the subordinate's behavior and give explanations for both high and low scores given on performance factors.

Employee participation, communication, self-appraisals and feedback can be seen throughout Greenberg's five factors. Soliciting input, two-way communication during the appraisal interview, and the ability to challenge/rebut the evaluation all imply employee participation and supervisor-subordinate communication. Anytime the supervisor has the employee participate, some type of communication must occur. Soliciting input allows employee participation before the actual formal evaluation, the two-way communication factor implies employee participation during the evaluation, and the opportunity to challenge/rebut the evaluation gets the employee involved during and after the evaluation interview. The importance of the feedback discussion can be seen in

the consistent application of standards, rater familiarity with the ratee's work, and two-way communication during the appraisal interview. The feedback discussion itself, in order to be satisfactory to the subordinates, requires two-way communication. It is in the feedback discussion that the ratee may determine whether or not standards have been applied consistently or if the rater is familiar with the ratee's work. If feedback is accurate and scores are adequately explained, the ratee is likely to feel comfortable with the rater's job knowledge and use of evaluation standards. By implementing these five procedural factors correctly, employee attitudes toward the evaluation process and the organization itself should improve.

Summary and Hypotheses

The new performance appraisal process, to be evaluated in this study, was designed to emphasize the procedural elements stressed by Greenberg. Under the new appraisal process, evaluation is an ongoing, continuous process. Supervisors are instructed to solicit input from employees prior to the evaluation by having the employees fill out their own evaluation forms. They are to discuss and formulate goals together during the appraisal interview. Raters are encouraged to discuss with the subordinates any discrepant points that come up during the appraisal. Raters should only be

rating positions with which they are thoroughly familiar. Under this new system, raters have a set of specific policies and procedures which they have been instructed to follow in completing an employee's evaluation. The procedural factors will be included in the organization evaluation process to determine if employees will be more satisfied with the new procedure. It is hypothesized that:

HYPOTHESIS 1: Employees will be more satisfied with the new system than the old system.

The amount of satisfaction derived from the new system is expected to be dependent on the specific factor of the model that is perceived by the employees to be present in the appraisal. In other words, not each of the five factors will lead to the same type of satisfaction.

Greenberg's factors are tied into three types of satisfaction: with the supervisor, with the evaluation, and with the appraisal itself. In order for these three criteria to be met, the supervisor must be willing to participate in the appraisal process. In order for a subordinate to perceive there is adequate two-way communication in the appraisal situation the supervisor must partake, and in many cases, instigate the communication. If the supervisor does not talk to his subordinates or, as is more likely, does not listen to his subordinates, there is no two-way communication. The "rater familiar with ratee's work" factor is going to be fulfilled only if the supervisor has knowledge of a ratee's job and shows this knowledge

to the ratee. The supervisor must observe the subordinates performing their jobs and show an active interest in the positions. Only the supervisor can ensure the third factor occurs in the appraisal. Sometime prior to the evaluation interview, the supervisor has to ask the subordinates for evaluation information and then take that information and use it. No matter how strong the evaluation system is, if a supervisor is not cooperating, these three factors will not lead to satisfaction for organizational employees. If these components are perceived to be present in the organization's appraisal system, employees will be satisfied with their supervisor.

The factors "ability to challenge/rebut the evaluation" and "consistent application of standards" have paths leading to satisfaction with the appraisal system. The last two factors indicate policies that the organization has set for the appraisal system. If questioning one's evaluation and expressing concerns over an evaluation score is encouraged within an organization, then employees have the ability to challenge or rebut the evaluation. If the organization stresses the importance of evaluations, consistent application of standards will be required. When policies and procedures regarding the appraisal process are stressed by the organization, employees are more likely to be satisfied with the evaluation system.

Satisfaction with the appraisal itself is connected to all of the factors, though the links may not be as strong or as direct as those mentioned previously. Being satisfied with the supervisors role in the appraisal or the appraisal system itself should lead to satisfaction

with the appraisal. Four hypothesis are derived from this model, which is pictured in Figure 1.

HYPOTHESIS 2a: The employee's perceptions of their supervisors' behavior will indicate the presence or absence of the five procedural factors.

HYPOTHESIS 2b: The higher the employee's perceptions of the presence of "two-way communication", "Solicit input before the evaluation", and "rater knowledge" (as indicated by the Greenberg Factor Scale) the more satisfied the subjects will be with their supervisor.

HYPOTHESIS 2c: The higher the employee's perceptions of the presence of "ability to challenge/rebut" and "consistent application of standards" (as indicated by the Greenberg Factor Scale) the more satisfied the subjects will be with the system.

HYPOTHESIS 2d: High scores on "satisfaction with supervisor" and "satisfaction with the system" will lead to satisfaction with the evaluation.

Method

Subjects

Subjects were employees of a small southeastern hospital. 144 employees who had been evaluated under the hospital's new evaluation process were surveyed. This group of employees consisted of two subgroups. Subjects in the first group were surveyed confidentially, but not anonymously, so each subjects' last performance rating was available (n=80). However, individuals were reluctant to turn in the surveys due to the lack of anonymity. In order to obtain more subjects, a second group was surveyed under conditions of anonymity (n=39). A control group (n=25) of employees who had not been evaluated under the new process were surveyed.

Procedure

Items which tap the extent to which the components of Greenberg's model have been applied in the appraisal system were developed by the researcher. The final survey was given to employees by their supervisors when paychecks are picked up. Details about the study were explained to the employees by means of a cover letter. As explained in the cover letter, subjects returned completed surveys to the experimenter by mail to ensure the confidentiality of their responses. For the confidential group, if surveys were not returned by the stated date, a memo was sent to the appropriate department managers. If this step did not produce

the unreturned surveys, individuals who had not returned their surveys were identified. These employees were then contacted about returning their surveys. For the anonymous group, surveys were sent out and no follow-up was performed.

Predictors

Supervisor Behavior Scale. Measures of the use of procedural factors in the new system were developed by the experimenter. The nine dichotomous items (see Appendix A) were developed by referring to the procedural manual for the new evaluation system.

Measures of Greenberg's Five Factors. The second level predictor measures tapped the actual factors found in the system. These items were developed by referring to existing literature that has examined different elements of procedural fairness. This set of items is a combination of items made up by the experimenter, and items obtained from questionnaires designed by Evans and McShane (1988), Landy et al (1978), Folger and Konovsky (1989), and Dipboye and Pontbriand (1988). These items assess the extent to which Greenberg's five factor model has been incorporated in the appraisal process by the organization and used by the raters. Appendix B represents which items tap each of Greenberg's five dimension. The reliability of the five individual scales will be assessed with internal consistency measures.

Criteria

Evaluation Satisfaction Measures. The Pay Satisfaction Questionnaire developed by Heneman (1985) was included as a criterion measure. The PSQ was selected over the Job Description

Questionnaire and the Minnesota Satisfaction Questionnaire because it breaks pay satisfaction into factors, most importantly tapping satisfaction with the structure and administration of the pay system. Items developed by Mount (1983) which tap general satisfaction with the appraisal process were also included. Employees' satisfaction with their supervisor's role in the appraisal process, the overall appraisal system, and the actual evaluation will be assessed by the scale developed for that purpose by the experimenter (see Appendix C).

ANALYSIS

For hypothesis one, the mean averages on the satisfaction measures were determined for the employees who had been evaluated under the new evaluation system and for the control group. These averages were then compared, using a one-way analysis of variance. The bulk of the analysis was conducted using confirmatory factor analysis.

Confirmatory factor analysis is a useful tool for testing a predetermined model if one already knows or has a good ideas of what the factors are that are involved in the model. Hypotheses 2a, 2b, 2c, and 2d were tested using the "Calis" procedure. The "Calis" procedure (Covariance Analysis of Linear Structural Equations) is used to estimate parameters and test the appropriateness of linear structural equation models using covariance structure analysis. The Calis procedure provides fit measures for the model which has been submitted. Appropriateness of the model was determined by comparing the predicted models' fit levels with the standard levels of acceptability. Fit measure are of extreme importance when using confirmatory factor analysis. Estimating parameters of the confirmatory factor model is just the first step. The values of the individual parameter estimates and standard errors can be used to test the statistical significance of the individual parameters. Given the large number of alternative fit indices available, it is often difficult to choose the appropriate measures. Six specific criteria are often used to help make the fit measure selection (Tanaka, 1992). These criteria are:

1) Population-Based versus Sample-Based: Population-based fit indices estimate a known population parameter; sample-based fit indices described the data-model fit in the observed sample at hand.

2) Simplicity versus Complexity: Fit indices that favor simple models penalize models in which many parameters are estimated; fit indices that do not employ such a correction do not penalize for model complexity.

3) Normed versus Non-normed: Fit indices that are normed are constructed to lie within an approximate (0,1) range; non-normed fit indices do not necessarily lie in this range. Non-normed fit indices are used when the experimenter is quite confident the model will fit the data. Therefore a smaller range is used with the non-normed indices.

4) Absolute versus Relative: Relative fit indices are defined with respect to a specific model that serves as an anchor for subsequent model comparisons; absolute fit indices do not employ such an anchor.

5) Estimation Method-Free versus Estimation Method-Specific: Estimation method-free indices will provide characterizations of model fit that are unaffected by the choice of a specific estimation method; estimation-specific fit indices will provide different fit summaries across different methods of estimation.

6) Sample Size Free versus Sample Size Dependent: Sample size free indices are not affected by sample size, either directly or indirectly; sample size specific fit indices will vary as a function of observed sample size.

Going by these criteria, several goodness of fit indices were selected to test model fit. Goodness of fit index, the GFI adjusted for degrees of freedom, and the parsimonious GFI were the measures selected for this analysis. These indices are appropriate for the sample used, the complexity of the model under consideration, the lack of a relative anchor available, and the need for the fit indices to provide different fit summaries across different methods of estimation. When looking at these particular fit measures, acceptable levels of fit are considered to be those that reach .90. Any levels of fit below .90 suggest that the model needs modifying or there are no causal relations present within the data.

Results

Descriptive Statistics

Table 1 shows the means, standard deviations, and standard error for the measurement scales used. Table 2 shows the intercorrelations and coefficient alphas for these variables and scales. As the results indicate, internal consistency of the individual scales was quite good. The range from .7217 (soliciting input prior to the evaluation) to .9471 (satisfaction with the supervisor) indicates that the items within each scale were well matched.

Because the data were collected in two different waves, ANOVAs were run to determine if there were any significant differences among the two groups on the measurement scales used before the two were combined together in one data set. The one-way ANOVAs indicated that there were no significant differences between the two groups based on the way the items were answered. Both groups perceived their supervisors' behavior in approximately the same way. Levels of perceived rater knowledge, consistent application of standards, the supervisor soliciting input, the ability to challenge/rebut, two-way communication, satisfaction with the supervisor, satisfaction with the system, and satisfaction with the evaluation itself were statistically the same for the anonymous group and the confidential group of subjects. Additionally, the two groups did not differ on the nine dichotomous items from the supervisor behavior scale. Therefore the two groups were placed

together to perform the final analysis. Means, standard deviations, and the individual f-tests for the two groups on the measurement scales used are shown in Tables 3 and 4.

Hypothesis 1

The first hypothesis was tested using a one-way analysis of variance to determine if there were differences between the experimental group and the control group based on the way they answered the survey.

Hypothesis 1 predicted that employees would be more satisfied with the new performance appraisal system than the system previously used. This was determined by comparing the group surveyed before the new system was implemented and the group surveyed under the new system on the "satisfaction with the evaluation" scale. As predicted, a significant difference was found in levels of overall satisfaction between the two groups ($F(23, 139) = 19.84, p < .01$). Hypothesis 1 was supported.

Hypothesis 2a-2d

Hypotheses 2a through 2d were conceptualized within the framework of confirmatory factor analysis. Under this framework, one predicts the paths between variables, derives model statements, and then submits the data into these pathways. Hypotheses were tested using "Proc Calis", a SAS procedure designed to test confirmatory path models. The hypothesis is said to be supported if the measures of model fit meet the predetermined levels.

Hypothesis 2a predicted that employees' perceptions of supervisor's behavior would indicate the presence of the procedural factors within the system. If the employees answered the exogenous questionnaire items (ex.. Is your supervisor familiar with your job?) in a positive (yes) manner this implies that the employees perceive their supervisor to be behaving in the manner intended by the new appraisal system. In turn the employees should answer the endogenous questions in a manner consistent with the exogenous items. As indicated in Table 5, the fit measures for this portion of the model (.4300 GFI, .3547 AGFI, .3043 PGFI) did not come close to meeting the appropriate criterion of .90. Hypothesis 2a was not supported.

Hypothesis 2b predicted that employees' perceptions of the presence of Greenberg's factors, "solicit input prior to the evaluation", "two-way communication", and "rater knowledge" would lead to satisfaction with the supervisor. Hypothesis 2c predicted that employee perception of the presence of the procedural factors, "consistent application of standards" and "ability to challenge/rebut the evaluation" would lead to satisfaction with the system. Hypothesis 2d predicted that employee satisfaction with the supervisor and satisfaction with the system would lead to satisfaction with the evaluation. As indicated in Table 6, the fit measure for this portion of the model (.5301, .4868, .5048) did not meet the appropriate criterion, though it came closer than the model previously tested. When using goodness of fit indices for testing model fit, one looks for a fit around .9. A fit of .5301, which is even

lower when adjusted for degrees of freedom, is lower than the needed level. Hypothesis 2b, hypothesis 2c, and hypothesis 2d were not supported.

Further analysis were run to determine if significant paths did occur within the model. To test this idea, a fully correlated model was run using "proc calis". When a fully correlated model is run, all variables are assumed to be intercorrelated. Therefore, no causal paths are specified when running the model. This provides the highest possible level of fit for any model run with the data. The results for this analysis are presented in Table 7. As the fit measures indicate, there is reason to believe that causal paths are present among the variables. A fit of .9184, even after being adjusted for degrees of freedom is an acceptable level of fit. Therefore further research is needed to determined exactly what paths are present within the model to causally explain the employees satisfaction.

In view of this information, regressions were run to determine which of Greenberg's factors accounted for a significant portion of the variance within satisfaction with the supervisor, the system and with the evaluation itself. For all models run, predictors were entered simultaneously since no theory suggested any particular ordering of the predictors. By entering the predictors simultaneously, the unique variance each predictor accounts for is assessed (Myers, 1990). The variance for a particular predictor is not affected in any way by the other predictors.

The first regression was run to account for variance within "satisfaction with the supervisor". Results of this analysis are presented in Table 8. Within this dimension, two-way communication and rater knowledge account for 76% of the variance with parameter estimate of .5470 and .2555 respectively. The second regression used the factors from Greenberg's model to predict "satisfaction with the system." Results for this model are found in Table 9. Soliciting input and ability to rebut/challenge were the two Greenberg factors that contributed the most to "satisfaction with the system". The total model accounted for 48% of the variance. Results for the model testing "satisfaction with the evaluation" are found in Table 10. For "satisfaction with the evaluation" soliciting input and rater knowledge were the most important of Greenberg's factors, accounting for 60% of the variance.

Then regressions were run to test the final portion of the model. Regressing "satisfaction with the supervisor" and "satisfaction with the system" on "satisfaction with the evaluation" accounted for 80% of the variance within the model. To further test this idea, all of Greenberg's factors were added to the "satisfaction with the system" and "satisfaction with the evaluation" model and regressed on "satisfaction with the evaluation". Two-way communication and soliciting input accounted for variance over and above that accounted for by the two satisfaction variables. The total variance accounted for within this model was 83%. This indicates the possibility that a partially mediated model might best fit the data; although this was not hypothesized to be the case. Further research is needed to

determine what specific paths the partially mediated model would take.

Discussion

This thesis looks at the importance of including fairness in performance appraisal systems in order to increase efficiency and satisfaction. Distributive justice's effect on perceived fairness is prevalent in research but this study takes the procedural justice component into account. Employees are concerned with the process of making appraisal decisions, not just the final outcome. While this study only examined the relationship between procedural justice and one variable, satisfaction, other research has shown that procedural justice is related to many other outcome variables.

Within procedural justice research, Greenberg proposed a model designed to increase satisfaction with performance appraisal. This "procedurally just" model contained the elements most desired by employees within an evaluation process. Greenberg determined that "soliciting input prior to the evaluation", "two-way communication", "ability to rebut or challenge the evaluation", "consistent application of standards", and "rater familiarity with the ratee's work" are the components desired in an appraisal process. For this study these components were implemented into a new appraisal system. The organization's previous appraisal system was not designed around these procedurally just elements. As the results show, employees were significantly more satisfied with the new appraisal system than with the old system. This indicates that including Greenberg's factors does increase satisfaction which in turn increases confidence with and support of the system.

When results of the confirmatory factor analysis are examined, it is clear that the model proposed did not fit with the data. The exogenous variables (ex. Did you sit down with your supervisor before the performance evaluation to discuss your job performance?) were not predictive of the perceived presence of Greenberg's five factors within the organization's appraisal system. A possible explanation for this finding is the number of items used to measure the exogenous variables. Perhaps if more items were designed to tap the perceived activities of the supervisor the relationship between the exogenous variables and Greenberg's factors would be strengthened. Another possible explanation has to do with the subordinates' perceptions themselves. Regardless of whether or not the supervisor is performing in accordance with the procedurally just "plan" the subordinates may not perceive the actions. And even if they do perceive the actions, they may not be able to define what the supervisor is doing. For example, it is easy to know whether or not the supervisor handed the subordinate a rating feedback form. However, the subjects may not have been able to assess whether or not the supervisor was soliciting input. A subject may know the supervisor asked him a question about an aspect of his job, but may not categorize that as soliciting input.

Although the fit between Greenberg's five factors and the satisfaction measures was greater than the fit of the first half of the model, it still was not high enough to reach standard "good fit" measures (ex. GFI, AGFI). Results indicate that the five factors are highly correlated with one another and therefore may have all been

scored similarly. An explanation for this lack of fit has to do with halo. Because the new system that was implemented was much more structured and clear to the employees; there may have been a comparison problem. Since the new system was better than the old system, the subjects may have given high ratings without any regard for the specifics of the items. Within halo, there is also the problem of reverse causality. Because the subordinates were satisfied with the evaluation itself, they might have attributed this satisfaction to Greenberg's five factors when filling out the questionnaire. Instead of the five factors leading to satisfaction with the evaluation, satisfaction with the evaluation is leading to the belief that the five factors are present within the system.

This problem of halo poses problems in structuring the evaluation process. Employees need to be made aware of the five factors within the system, and what supervisor behaviors relate to those factors. In order to determine which factors are causally affecting satisfaction, the employees must be able to distinguish among the factors. Once the employees can define and are aware of the factors in the evaluation process then it can be determined which factors are important within the process. This in turn would lead to a restructuring of the appraisal process to match employee perceptions of the procedural factors.

Because the proposed model was unsuccessful in fitting with the data; it was not possible to determine any direct links between the five procedural factors and the satisfaction measures. Further statistical analysis were performed (ex. regression analysis) to

examine the relationship between certain procedural factors and the satisfaction measures. According to the regressions, there is reason to believe that there are causal links within the model. New models can be derived from this analysis. The regressions suggest several possible causal model relationships.

When all of Greenberg's factors and "satisfaction with the supervisor" and "satisfaction with the system" were entered simultaneously into the regression, certain Greenberg factors accounted for variance over and above that which they had accounted for in the satisfaction measures. This suggests the possibility of a partially mediated model. Specifically, "two way communication" and "solicit input prior to the evaluation" may have both a direct and an indirect effect on "satisfaction with the evaluation". Several partially mediated models should be set up to determine if in fact certain factors have direct and indirect paths leading to the satisfaction measures.

Though the evidence indicates that a partially mediated model may explain the data, there is also the possibility that one or more of Greenberg's factors could be dropped. When looking at the intercorrelations among the factors, one can see that the lowest correlation is .615, which is quite high. It could be that one or more of Greenberg's factors are redundant with one another. If this is the case, then by dropping particular factors, the model will more clearly fit what is actually occurring during the appraisal process.

Another possible explanation for the lack of model fit is the idea of the factors being hierarchically arranged. It could be that

particular factors subsume other factors, thereby creating a case of redundancy within the model. If this is the case, further paths need to be determined within the model, to improve the model's fit. For example, "solicit input prior to the evaluation" may actually go directly to "two-way communication" which in turn leads to "satisfaction with the supervisor". If causal paths do exist among Greenberg's factors, this would help explain the extreme amount of intercorrelation among the factors.

Results supported the hypothesis that perceived procedural fairness (in terms of Greenberg's five factors) is positively related to increased satisfaction with an appraisal system. The issue is to determine how the perceived procedural fairness increased satisfaction. If employees are more satisfied with a fair process, then there should be a direct link between the procedural elements and the measures of satisfaction. Though the proposed model did not predict the relationships as expected, it is important to note that this is the first test of Greenberg's model in the field.

Greenberg's model did not fit the data as predicted; but the model definitely had an effect of employee satisfaction with the appraisal system. Future research in the field is needed to help clarify the exact relationship. It is suggested that while Greenberg's model provides a good starting place, clarification of the factors needs to take place. Further operationalization of the factors would help to distinguish among supervisor behaviors and diminish the high intercorrelations among the factors. Before causal relationships between the factors and measures of satisfaction can be assessed, the

relationship between the factors themselves must be clearly defined. If this factor clarification takes place, then it can be determined if any specific paths of causality exist between the factors and satisfaction.

Conclusions

The current study supports the premise that employees are more satisfied with an evaluation system which is procedurally just than one that is not. Unfortunately, the model describing this relationship did not prove to adequately fit the data. New models and different statistical analysis is needed to determine the paths between the procedural elements and specific types of employee satisfaction.

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Appendix A
Supervisor Performance Scale.

1. Did you sit down with your supervisor before the performance evaluation to discuss your job performance?
2. Were you given a feedback form to fill out before the formal evaluation?
3. Did your supervisor help you set performance goals for the upcoming year during the appraisal interview?
4. Did you receive a copy of the finalized performance feedback form?
5. Since your last performance appraisal, has your supervisor met with you to review your progress toward goals?
6. Did your supervisor give you the opportunity to question the evaluation?
7. Is your supervisor familiar with your work?
8. Was your salary discussed during your appraisal interview?
9. For your performance evaluation did you meet in a private, uninterrupted environment?

Appendix B

Supervisor Behavior Scale

SOLICIT INPUT PRIOR TO THE EVALUATION

1. My supervisor got input from me before the evaluation.
2. My supervisor found out how well I thought I was doing in the job.
3. My supervisor considered my views regarding my performance.
4. My supervisor asked for my ideas on what I could do to improve company performance.

TWO WAY COMMUNICATION

1. My immediate supervisor is influenced by what I think.
2. My immediate supervisor keeps me informed to help me know whether I am making progress.
3. I feel comfortable talking with my immediate supervisor.
4. My immediate supervisor listens to me.
5. My supervisor gave me feedback which helped me learn how well I was doing.
6. I know what my immediate supervisor expects of me.
7. I am encouraged to express my opinions on how my duties could be more effectively performed.

ABILITY TO CHALLENGE/REBUT

1. I am given the opportunity to state my side of all issues discussed during my performance appraisal.
2. I am given the opportunity to express my feelings during my performance appraisal.
3. I have the opportunity to express my feelings while I am being evaluated.
4. There is ample opportunity to discuss all aspects of my job during my appraisal.
5. I feel free to discuss with my supervisor how my performance was evaluated.
6. I was given the opportunity to express my side during the evaluation.
7. I had the opportunity to express my side during my most recent appraisal interview.

CONSISTENT APPLICATION OF STANDARDS

1. My formal performance appraisal is connected to informal meetings between my appraiser and I which take place through the entire year.
2. I have written objectives I work to achieve.
3. Discussion and review of my performance is a continuous process, not one which occurs only during my formal performance appraisal.
4. My supervisor used consistent standards in evaluating me.
5. The factors on which I am evaluated are relevant.
6. My immediate supervisor is consistent and predictable
7. Performance standards were set during the calendar year.
8. My performance in my most recent appraisal was fairly and accurately evaluated.
9. I am fairly compensated for my work.

RATER'S FAMILIARITY WITH RATEE'S WORK

1. My appraiser has a good understanding of the skills required to perform my job.
2. My immediate supervisor has knowledge of my performance.
3. My appraiser is familiar with all phases of my work.
4. My appraiser has excellent personal knowledge of my performance level in my current position.
5. My appraiser has observed my performance under both routine and pressured conditions.
6. My supervisor frequently observes my performance.
7. My supervisor obtained accurate information about my performance.
8. My supervisor became thoroughly familiar with my performance.

Appendix C

Employee Satisfaction Scale.

The statements below describe various aspects of the performance appraisal system. For each statement, decide how satisfied or dissatisfied you feel about the system and put the number in the corresponding blank that best indicates your feeling. To do this, use the following scale:

1 = VERY DISSATISFIED

2 = DISSATISFIED

3 = NEITHER DISSATISFIED NOR SATISFIED

4 = SATISFIED

5 = VERY SATISFIED

1. The effectiveness of the current appraisal system.
2. My supervisor's honesty in his/her dealings with me.
3. The favorableness of my most recent evaluation.
4. The consistency my supervisor used in evaluating me.
5. The fairness of the current appraisal system.
6. How fairly my performance in my most recent appraisal was evaluated.
7. How trustworthy my supervisor is in his/her dealings with me.
8. My overall experience with the current appraisal system.
9. My supervisor's accuracy in evaluating me.
10. How ethical my supervisor is in dealing with me.
11. How accurately my performance in my most recent appraisal was evaluated.
12. The effectiveness of my supervisor's evaluation of me.
13. The accuracy of the current appraisal system.
14. How comfortable I feel with my supervisor evaluating me.
15. How effectively my performance in my most recent appraisal was evaluated.
16. How fairly my supervisor evaluated me.

Table 1

Means, Standard deviations, and standard errors for measurement scales used.

SCALE	MEAN	STD. DEV.	STD. ERR.
Two-way Communication	3.86	1.01	.139
Rater Knowledge	3.78	1.03	.212
Ability to Challenge/Rebut	4.04	.859	.119
Consistent Application	3.57	1.06	.147
Solicit Information	3.54	1.11	.155
Evaluation System	3.61	1.01	.139
Supervisor	3.49	.98	.135
Evaluation Itself	3.84	1.01	.142

Note: Evaluation System = Satisfaction with the Evaluation System; Supervisor = Satisfaction with the Supervisor; Evaluation Itself = Satisfaction with the Evaluation Itself;

Table 2

Variable Intercorrelations

	TWO	REBUT	SOLICIT	KNOW	STAND	SUPSAT	SYSSAT	EVALSAT
Two	(.892)							
Rebut	.769	(.915)						
Solicit	.819	.719	(.880)					
Know	.747	.615	.735	(.911)				
Stand	.809	.655	.839	.757	(.722)			
Supsat	.855	.723	.788	.751	.771	(.947)		
Syssat	.574	.589	.695	.523	.586	.644	(.913)	
Evalsat	.686	.616	.763	.675	.708	.878	.712	(.899)

Note: N=109. Two= two way communication; Rebut = ability to rebut; Solicit = solicit input prior to the evaluation; Know = rater's knowledge; Stand = consistent application of standards; Supsat = satisfaction with supervisor; Syssat = satisfaction with system; Evalsat = satisfaction with the evaluation. Coefficient alphas for scales in parentheses.

Table 3

Anonymous Group versus Confidential Group on measurement scales used.

Variables	<u>Greenberg's Factors</u>				F-test
	Group 1		Group 2		
	Mean	Std Dev	Mean	Std Dev	
TWO	25.68	6.12	27.82	5.27	.3155
REBUT	29.26	6.99	30.76	6.37	.5996
SOLICIT	30.50	7.24	33.07	6.62	.5553
KNOW	27.97	4.80	28.79	5.11	.6392
STAND	13.56	3.93	14.66	3.17	.1503
SUPSAT	29.96	7.23	29.66	6.25	.3339
SYSSAT	12.80	3.91	14.84	3.35	.3071
EVALSAT	14.47	3.71	14.51	3.04	.1833

Note: N for Group 1 = 80. N for Group 2 = 40. Two = two way communication; Rebut = ability to rebut; Solicit = solicit input prior to evaluation; Know = rater's knowledge; Stand = consistent application of standards; Supsat = satisfaction with supervisor; Syssat = satisfaction with system; Evalsat = satisfaction with the evaluation.

Table 4

Anonymous Group versus Confidential Group on Dichotomous Items

ITEM	<u>Dichotomous Items</u>	
	Value	Prob
1	.116	.773
2	7.43	.12
3	2.85	.33
4	5.43	.23
5	.54	.24
6	2.34	.43
7	3.35	.24
8	2.56	.54
9	3.43	.43

Table 5

Fit measure for Supervisor's Behavior Indicating the Presence of Procedural Factors.

Fit criterion.....	144.3452
Goodness of Fit Index.....	.4300
GFI Adjusted for Degrees of Freedom.....	.3547
Root Mean Square Residual.....	.2310
Parsimonious GFI.....	.3043

Table 6

Fit measures for Employee Satisfaction with the System and Supervisor leading to Satisfaction with the Evaluation.

Fit criterion.....	164.2467
Goodness of Fit Index.....	.5301
GFI Adjusted for Degrees of Freedom.....	.4868
Root Mean Square Residual.....	.3519
Parsimonious GFI.....	.5048

Table 7

Fit measures for the fully correlated model.

Fit criterion.....	25.7347
Goodness of Fit Index.....	.9258
GFI Adjusted for Degrees of Freedom.....	.9184
Root Mean Square Residual.....	.1393
Parsimonious GFI.....	.8757

Table 8

Models factors regressed on satisfaction with supervisor.

Dependent Variable: SUPSAT

Parameter Estimates		
Variable	Parameter Estimate	T for HO: Parameter=0
TWO	0.547048	4.652**
REBUT	0.111038	1.440
SOLICIT	0.128207	1.315
KNOW	0.255472	2.365*
STAND	0.133784	0.744

Note. N = 120. Rsquare = .78. Adjusted Rsquare = .76. * p < .05. ** p < .01.

Two = Two way Communication; Rebut = Ability to Challenge/Rebut the evaluation; Solicit = Solicit input prior to the evaluation; Know = Rater knowledge of ratee's performance; Stand = Consistent Application of Standards.

Table 9

Model factors regressed on satisfaction with the system.

Dependent Variable: SYSSAT

Parameter Estimates

Variable	Parameter Estimate	T for HO: Parameter=0
TWO	-0.080934	-0.829
REBUT	0.129132	2.017*
SOLICIT	0.333331	4.116**
KNOW	0.014319	0.160
STAND	0.014608	0.098

Note. N = 120. Rsquare = .50. Adj. Rsquare = .48. * p < .05. ** p < .01.

Two = Two way communication; Rebut = Ability to Challenge/Rebut the evaluation; Solicit = solicit input prior to the evaluation; Know = Rater knowledge of ratee's performance; Stand = consistent application of standards.

Table 10

Model factors regressed on satisfaction with the evaluation itself.

Dependent Variable: EVALSAT

Parameter Estimates

Variable	Parameter Estimate	T for HO: Parameter=0
TWO	0.004030	0.052
REBUT	0.046392	0.913
SOLICIT	0.223906	3.483**
KNOW	0.135984	1.910*
STAND	0.112669	0.950

Note. Rsquare = .62. Adj. Rsaure = .60.

Dependent Variable: EVALSAT

Parameter Estimates

Variable	Parameter Estimate	T for HO: Parameter=0
SUPSAT	0.363026	12.913**
SYSSAT	0.226250	4.489**

Note. Rsquare = .81. Adj. Rsquare = .80. Table continued.

Table 10 continued.

Dependent Variable: EVALSAT

Parameter Estimates		
Variable	Parameter Estimate	T for HO: Parameter=0
TWO	-0.227207	-4.056**
REBUT	-0.026541	-0.789
SOLICIT	0.106792	2.381*
KNOW	0.018688	0.395
STAND	0.049975	0.650
SUPSAT	0.449123	10.370**
SYSSAT	0.178601	3.424**

Note. N = 120. Rsquare = .84. Adj. Rsquare = .83. * p < .05. ** p < .01.

Two = two way communication; Rebut = ability to rebut/challenge the evaluation; Solicit = solicit input prior to the evaluation; Know = rater knowledge of ratee's performance; Stand = consistent application of standards; Supsat = satisfaction with the supervisor; Syssat = satisfaction with the system; Evalsat = satisfaction with the evaluation.