This is to certify that the
dissertation entitled

EMPLOYEE REACTIONS TO PERFORMANCE APPRAISAL: DEVELOPMENT OF AN INTEGRATIVE FRAMEWORK AND META-ANALYSIS

presented by

SHAUN MICHAEL PICHLER

has been accepted towards fulfillment
of the requirements for the

Ph.D. degree in Labor & Industrial Relations

Mark V. Roehling

Major Professor's Signature

8/1/2009

Date

EMPLOYEE REACTIONS TO PERFORMANCE APPRAISAL: DEVELOPMENT OF AN INTEGRATIVE FRAMEWORK AND META-ANALYSIS

By

Shaun Michael Pichler

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Labor & Industrial Relations

2009

ABSTRACT

EMPLOYEE REACTIONS TO PERFORMANCE APPRAISAL: DEVELOPMENT OF AN INTEGRATIVE FRAMEWORK AND META-ANALYSIS

By

Shaun Michael Pichler

Performance appraisal is one of the most heavily researched topics in human resource management, and employee reactions to appraisals are an important outcome of the appraisal process (some scholars and practitioners say the most important outcome), yet there has been a critical science-practice gap in this literature in that research has not produced a coherent understanding of why employees react in different ways to appraisals. In response to criticisms from the scholarly and practitioner communities both, research has shifted its focus to contextual aspects of the appraisal, and to employee reactions to appraisals. The context of performance appraisal and employee reactions to appraisals are highly interrelated, yet there has been no comprehensive review of the employee reaction literature, and no integrative framework exists with propositions about when and why contextual antecedents should be related to employee reactions.

The purpose of this dissertation is to provide such an integrative framework in order to organize the literature on employee reactions to performance appraisal, including mediating mechanisms whereby contextual antecedents are related to reactions, as well as potential moderators of the relationships between contextual antecedents and reactions. Organizational justice theory is used as an over-arching theoretical lens to develop hypotheses about these relationships. A related purpose is to test, using meta-analytic correlations and multivariate analyses with these meta-analytic correlations, some of the

relationships articulated by this framework, as to guide future theory, research and practice related to performance management and appraisal.

Results indicated that social contextual variables (supervisor support, supervisor trust, supervisor satisfaction and supervisor-subordinate relationship quality) were all similarly related to appraisal reactions (at or around M*r* = .60); were most strongly related to perceptions of interactional justice (as compared to distributive and procedural justice); that relationships between social contextual variables and appraisal reactions were partially mediated by perceptions of organizational justice. Results also indicated that relationships between due process performance appraisal characteristics (adequate notice, fair hearing and judgment based on evidence) and appraisal reactions were mediated (fully or partially, depending on the antecedent) by perceptions of organizational justice. Performance appraisal rating favorability moderated the relationship between feedback frequency (an aspect of adequate notice) and appraisal reactions, but did not moderate the relationship between voice (instrumental and value-expressive) and appraisal reactions.

These results support key propositions of organizational justice and social exchange theory, as well as the due process model of performance appraisal developed by Folger Konovsky, & Cropanzano (1992). They indicate that employees react differentially to performance appraisals based on their perceptions of the fairness of the appraisal, in terms of different substantive aspects of organizational justice, and that it is important to consider rating favorability as a moderator of relationships between contextual antecedents and appraisal reactions.

To my parents and grandparents -- who have always been my inspiration in work and life.

ACKNOWLEGMENTS

Completing a Ph.D. is a time-consuming, challenging and self-revelatory experience that is best done with the support and encouragement from advisors, friends and family. I would like to express my deep and sincere thanks to those persons who have helped me throughout this humbling process.

My advisor and committee chair, Mark Roehling, was truly the best chair a doctoral student could ask for, and for that I owe him a debt of gratitude. He challenged me to write and develop a proposal and, ultimately, a dissertation that was truly reflective of my full range of academic skills, and would not accept anything less. I would not be as proud of the final result of my academic training, my dissertation, if it weren't for his very astute guidance. I am honored to call him a colleague.

I would also like to thank each of my committee members, Ellen Kossek, Fred Oswald and Mike Moore for providing critical feedback in a supportive and developmental way. My dissertation benefitted tremendously from their knowledge and insight. My committee members were always constructive and helpful, and made the dissertation process more productive and, yes, more enjoyable for me than I could have expected.

Finally, I would like to thank my friends and family. Without their patience, support and consistent encouragement, this dissertation would not be possible.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Performance appraisal (PA) is perhaps the most ubiquitous human resource management tool used in organizations (Rynes, Gerhart & Parks, 2005). Scholars (Folger, Konovsky and Cropanzano, 1992) and practitioners alike (Thomas & Bretz, 1994) contend that employee reactions to performance appraisal are key criteria by which performance appraisals should be judged, given inconsistencies across raters in performance evaluations and the importance of buy-in to the process among both raters and ratees (Murphy & Cleveland, 1995). Since performance appraisals have such significant implications for organizations in terms of performance management and the allocation of scarce resources, persons administering and being evaluated by a performance appraisal must evaluate and react to it positively in order for the appraisal process to be effective (Bernardin & Beatty, 1984; Cardy & Dobbins, 1994; Folger et al., 1992).

Scholars and practitioners have noted, however, that managers and employees alike are often dissatisfied with the performance appraisal process (e.g. Taylor et al., 1995), and that extant research has not adequately addressed how to increase performance appraisal acceptance. This has lead to a critical science-practice gap (e.g. Balzer & Sulsky, 1990). In fact, practitioners are more interested in employee reactions to performance appraisal[1] than their psychometric properties (Balzer & Sulsky, 1990). Since the key purpose of performance appraisal is to provide employees with formal performance feedback as to improve subsequent performance (Tziner, Murphy, &

[1] Employee reactions to performance appraisal will be referred to simply as "employee reactions" for the remainder of the dissertation for purposes of brevity.

Cleveland, 2005), and since acceptance of appraisal feedback is a necessary precursor to changing behavior, i.e. performance (Carver & Scheier, 1981; Kluger & DeNisi, 1996), it seems paramount to better understand the factors that predict employee reactions to performance appraisal.

In response to calls for research on contextual and qualitative aspects of performance appraisal (e.g. Murphy & Cleveland, 1991; 1995), recent research has focused on due process characteristics of performance appraisal (Folger et al., 1992), the social context of appraisals (Levy & Williams, 2004), perceptions of justice in appraisals (Erdogan, 2002), as well as overall reactions to the appraisal process (Cawley, Keeping & Levy, 1998). Each of these research streams is related in important ways to ratee (and rater) evaluations of the performance appraisal process. While qualitative reviews have highlighted the importance of each aspect of performance appraisal, no review has integrated these topics—despite their conceptual and theoretical overlap. Moreover, no published research has systematically and comprehensively reviewed the extant research on employee reactions to performance appraisal.

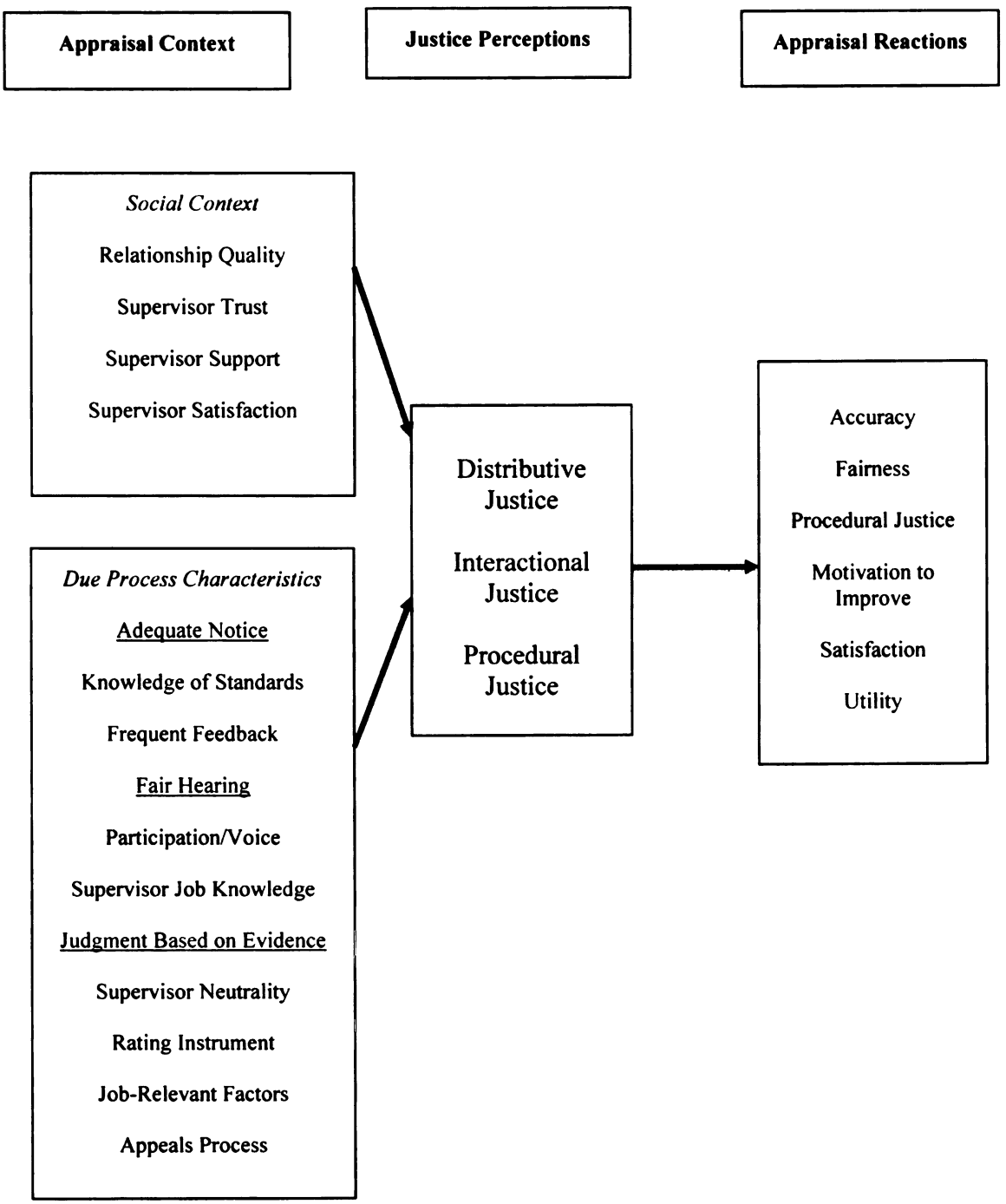
This is a problem because the literature on employee reactions is a) lacking a cohesive framework that organizes relevant antecedents into conceptually meaningful groups, and b) is lacking an explication of the mediating mechanisms whereby antecedents are related to employee reactions. The lack of such an overarching framework has lead to an apparent lack of consistency in the literature in terms of substantive relationships studied, a lack of clarity in terms of the theoretical contributions of this literature, and a lack of a meaningful assessment of cumulative findings in the literature. Thus not only is the employee reaction literature limited in its ability to

contribute to managerial understanding of why certain antecedents are important as related to employee reactions, the employee reaction literature has probably not made as big an impact as possible on OB/HR theory.

The purpose of the current dissertation, therefore, is to provide an integrative framework or process model[2] that organizes the existing literature by grouping theoretically related antecedents, i.e. social contextual variables and due process variables; developing hypotheses about why these antecedents should be related to employee reactions, i.e. mediated by perceptions of organizational justice; and by developing hypotheses about the boundary conditions of these relationships, i.e. moderation by rating favorability. Meta-analysis will be used to estimate some of the key relationships implied by the model. The integrative framework proposed in this dissertation will not only organize exiting research conceptually, it will also provide the basis for testing cumulative relationships, and will identify areas for future research and theoretical development. See Figure 1 for an illustration of the process model[3]

[2] The terms integrative framework and process model will be used synonymously.
[3] Similar to other conceptual models used to guide meta-analysis (e.g. Cohen-Carash & Spector, 2001), this is model is for illustrative purposes and is not intended to be a structural model.

Figure 1. *An Integrative Framework of Employee Reactions to Performance Appraisal*



This study will examine the interconnectedness between appraisal context, perceptions of justice and employee reactions to performance appraisal, and will also test some primary tenets of organizational justice theory. While employee reactions have received increased research attention in recent years, performance appraisal researchers have been interested in employee reactions as an important outcome of the appraisal process for decades (e.g. Zander & Gyr, 1955).

The following chapter introduces the concept of employee reactions as a criterion of appraisal effectiveness, and describes those primary constructs typically measured as employee reactions. Chapter 3 will then provide a review of organizational justice theory and research in order to provide the theoretical foundation for explaining relationships between performance appraisal context, justice perceptions and employee reactions. Chapters 4 and 5 will review the literature on relationships between performance appraisal context and employee reactions. These chapters will develop the integrative framework that organizes the existing literature, and will develop hypotheses based on justice theory about how and why appraisal context should be related to employee reactions. Chapter 6 will then explain the meta-analytic methods that will be used to test parts of this model.

CHAPTER 2

EMPLOYEE REACTIONS AS A CRITERION OF PERFORMANCE APPRAISAL EFFFECTIVENESS

2.1 The Psychometric Approach to Performance Appraisal

Although researchers have expressed interest in employee reactions for some time now (e.g. Zander & Gyr, 1955), until recently most performance appraisal research focused on what has been called the psychometric or test approach (Folger et al., 1992) to performance appraisal effectiveness (Murphy & Cleveland, 1995). The psychometric approach focused on increasing rating accuracy and reducing rating errors. The underlying assumption of this model was the accuracy is a key dimension of appraisal effectiveness. The psychometric model of performance appraisal assumes that ratings that are free from halo, leniency and range restriction are accurate (c.f. Saal, Downey, & Lahey, 1980), and that developing rating instruments that reduce biases (the "rating format" perspective; Landy & Farr, 1980) or training raters to avoid these biases (the "cognitive" perspective; Feldman, 1981) will increase rating accuracy,

Scholars have noted that the psychometric model is limited in its capacity to consider contextual factors in performance appraisal (Arvey & Murphy, 1998; Murphy & Cleveland, 1995), and that rating accuracy is also a function of these factors (Cardy Dobbins, 1994; Murphy & Cleveland, 1995). Indeed, Ilgen, Barnes-Farrell and McKellin (1993) argued that performance appraisal research needed to move beyond both the rating format and cognitive perspectives of performance appraisal, as to better inform performance appraisal in theory and, especially, in practice. Building on the psychometric approach, Cardy and Dobbins (1994) identified three primary criteria of performance

appraisal effectiveness: rater errors, rating accuracy *and* qualitative criteria. Employee reactions to performance appraisal are a major component of qualitative criteria (Murphy & Cleveland, 1995). Indeed, Levy and Williams (2004) later replaced qualitative criteria with employee reactions in their model of appraisal effectiveness.

2.2 Performance Appraisal Context and Employee Reactions to Performance Appraisal

Partly in response to critical reviews (e.g. Ilgen et al., 1993), research on performance appraisal shifted away from the psychometric approach, and increasingly focused on qualitative aspects of appraisals, such as employee reactions. Researchers (e.g. Cawley et al., 1998; Levy & Williams, 2004) have not proposed an operational definition of employee reactions, but employee reactions can be defined as *individual-level attitudinal evaluations of and responses to the performance appraisal process, which include perceptions of appraisal accuracy, fairness (overall fairness, as well as perceptions of performance appraisal distributive, interactional and procedural justice) and utility, satisfaction with the appraisal, and motivation to improve performance.*

In order to understand how contextual variables are related to employee reactions, it is important to briefly explain each of these reactions (also see Cawley et al., 1998; Keeping & Levy, 2000). Accuracy is the perception that one's performance rating accurately reflects one's actual performance. Fairness is an overall evaluation of the perceived fairness of a performance appraisal. Motivation to improve is the perception that one is motivated to increase his/her performance based on the appraisal. Satisfaction is an overall evaluation of how satisfied one is with the appraisal. Utility is a perception that the appraisal was worthwhile and effective in terms of evaluating work performance. Finally, performance appraisal procedural and distributive justice are adaptations of

justice variables to specifically reflect perceptions of the fairness of policies/procedures and outcomes of the appraisal process, respectively. Performance appraisal procedural and distributive justice differ from fairness perceptions in the in that the former two measure specific aspects of appraisal fairness, and the latter is an overall evaluation of fairness. While not included in the Keeping and Levy (2000) study, recent research has also begun to consider perceptions of interactional justice as related to performance appraisal (e.g. Buehler, 2006; Elicker, 2000; Johnson, 2003).

2.3 Existing Research on Employee Reactions

Keeping and Levy (2000) found that the variables used to measure these constructs generally performed well, i.e. represented distinct constructs, and that appraisal satisfaction could be effectively separated into session satisfaction and system satisfaction. Session satisfaction reflects how satisfied one is with the appraisal session; system satisfaction reflects how satisfied is with the performance appraisal system. It is important to distinguish between session and system satisfaction given their conceptual differences, and differential relationships with correlates (Cawley et al., 1998; Keeping & Levy, 2000).

Cawley, Keeping and Levy (1998) conducted a meta-analysis of this literature, which included 27 field studies and demonstrated that employee participation in the appraisal is an important contextual antecedent of employee reactions. Since research throughout the 1990's continued to focus on employee reactions as a criteria of appraisal effectiveness, Keeping and Levy (2000) evaluated the measurement properties of employee reaction variables, namely perceived accuracy, perceived fairness, motivation to improve, appraisal satisfaction and perceived utility, as well performance appraisal

procedural justice and distributive justice. The first five reaction variables were included in the Cawley et al. (1998) study, whereas the last two were not. This is important to note since, while Keeping and Levy (2000) consider justice perceptions to be appraisal reactions much like perceptions of overall fairness and satisfaction, justice perceptions are not necessarily treated as such in the literature, and should theoretically precede these reactions, as will be explained in the following chapter.

Scholars and practitioners have been critical of the psychometric approach to performance appraisal effectiveness, suggesting that it is important to take a more "qualitative" or context-based approach to appraisal effectiveness. While the conceptual and empirical research has helped to establish employee reactions as important qualitative criteria of appraisal effectiveness (Cawley et al., 1998; Keeping & Levy, 2000; Levy & Williams, 2004), the literature on employee reactions has grown considerably since the time of the Cawley et al. (1998) review. Indeed, Levy & Williams (2004) identified 20 new studies on employee reactions in their review of the social context of performance appraisal. The present literature review identified 84 studies with 94 unique samples that met inclusion criteria for analysis (see Chapter 6), or 57 studies on employee reactions that were published since or were otherwise not included in the Cawley et al. (1998) meta-analysis.

Therefore, it seems important, not to mention timely, to reconsider the relationships tested in the Cawley et al. (1998) study, as the authors themselves recommended future researchers do, as well as other theoretically meaningful relationships between performance appraisal context and employee reactions. Indeed, while there have been a number of studies related to employee reactions since the Cawley

et al. (1998) study, they do not necessarily build upon or complement one another in terms of theory testing or development, most likely because this research has not been organized into an integrative framework.

2.4 Limitations of the Extant Literature on Employee Reactions

While it employee reactions are no longer "neglected criteria" (Murphy & Cleveland, 1995, pg. 310) in terms of the volume of studies related to these criteria, this literature is still neglected in the sense that it lacks cohesion and real developmental progress in terms of the types of antecedents studied in the literature and the theoretical contributions of this literature. While researchers are still interested in relationships between employee participation and employee reactions (e.g., Jawahar, 2006; Kavanagh, Benson, Brown, 2008), some are critical of the finding by Cawley et al. (1998) that value-expressive voice is more strongly related to employee reactions than is instrumental voice (Bonness & Macan, 2006; Suh, 1992). This will be considered in more detail in chapters to follow.

There have also been a number of studies in recent years that test relationships between social contextual variables and employee reactions (Williams & Levy, 2004). A variety of variables have been used to represent the social context of appraisal, including rater-ratee relationship quality, supervisor support, supervisor satisfaction, and supervisor trust (see chapter 4). This was not articulated in the review by Levy and Williams (2004), however, and it is therefore important to consider how these antecedents are interrelated, and how they are related in similar ways to employee reactions.

While no existing review has identified this trend, my review of the literature also uncovered that a number of studies have focused on relationships between due process

appraisal characteristics (Folger et al., 1992) and employee reactions (Buehler, 2006; Taylor et al., 1995). Almost none of these studies does so using the due process model proposed by Folger et al. (1992), however, thus limiting the contribution these studies make to the understanding of due process and employee reactions. It accordingly seems important to integrate this literature in order to utilize and build upon the due process model of performance appraisal as it relates to appraisal effectiveness in terms of employee reactions.

While most of the existing research has focused on the antecedents of employee reactions, given that scholars assume they are important criteria in and of themselves (Bernardin & Beatty, 1984; Cardy & Dobbins, 1994; Folger et al., 1992; Williams & Levy, 2004), research has found that employee reactions are related to important outcomes measured after the performance appraisal (e.g. Blau, 1999; Jawahar, 2006; Kinicki et al., 2004). As would be expected based on theory, recent research by Pettijohn and colleagues (Pettijohn, Pettijohn Taylor, & Keillor, 2001; Pettijohn, Pettijohn, & d'Amico, 2001) found that employee reactions can and do influence job attitudes, namely job satisfaction and organizational commitment, and Jawahar (2006) found that employee reactions influence future performance. While the current study focuses on the antecedents of employee reactions, existing scholarship suggests that employee reactions are important criteria, and that these reactions are related positively to subsequent job-related attitudes and behaviors.

CHAPTER 3

OVERVIEW OF ORGANIZATIONAL JUSTICE THEORY

The purpose of this chapter is to provide an overview of organizational justice theory. Chapters to follow will build upon this overview, and will explicate relationships between appraisal context and employee reactions. Research on organizational justice has focused largely on two types of justice perceptions, distributive and procedural justice. The concept of *distributive justice* is based on several theories about the content, i.e. outcomes, of decisions, whereas *procedural justice* is based on theories about the process by which decisions are made (Greenberg, 1990). More recently, research has addressed the concept of *interactional justice*, which is comprised of interpersonal justice, i.e. the fairness of interpersonal treatment one receives from authorities in terms of dignity and respect, and informational justice, i.e. the adequacy of explanations or justifications for decisions that one receives from authorities (Bies & Moag, 1986; Bies, 1987). Cumulatively, the application of distributive, procedural and interactional justice theories to organizational behavior represents the domain of *organizational justice* (Greenberg, 1990).

Greenberg's (1987) taxonomy of organizational justice differentiated theories according to two dimensions, resulting in four distinct types of justice theories. The first dimension, reactive-proactive, classifies theories according to whether the emphasis is on reactions to unfair situations or on preventing unfair situations. The second dimension, process-content, classifies theories according to whether the emphasis is on the fairness of procedures (procedural justice) or outcomes (distributive justice). Most of the research in the performance appraisal domain has been influenced by reactive justice theories, and

has been both process- and outcome-oriented, as will be seen below. Interactional justice research might also be thought of as reactive-oriented since it focuses on employee evaluations of interpersonal treatment from authority figures. Of course, this was not included in Greenberg's (1987) taxonomy since the concept of interactional justice was not yet introduced.

The following sections will review primary theories of distributive, procedural and interactional justice in that order, given that this is the order in which the concepts were introduced chronologically in the OB/HR literature (Greenberg, 1990).

3.1 Distributive Justice

As Greenberg (1990) explains in his review, two leading theories of distributive justice are Adam's (1963) equity theory (a reactive theory) and Leventhal's (1980) justice judgment model (a proactive theory). As applied to the workplace, equity theory postulates that workers compare their perceived inputs (work performance) and perceived outputs (rewards) to similar others, and modify their behavior and/or cognitions when their ratios are different. That is, when one's ratio is higher (lower) than a referent, he or she is inequitably overpaid (underpaid), which will lead to changes in behavior, i.e. increased (reduced) work performance, or cognitions, i.e. re-evaluation of one's work performance. This proposition can and has been applied to the performance appraisal context, such that one's job attitudes and work performance should be negatively affected when one receives a performance rating that one believes does not accurately reflect one's work performance (e.g. Ilgen et al., 1979; Kinicki et al., 2004).

Leventhal's (1980) justice judgment model stipulates that social harmony and optimal work performance are maintained by the equal distribution of rewards. Both

types of content theories would suggest that when an employee feels he or she has been given an unfair performance rating, i.e. one that is lower than deserved, perceptions of distributive justice will decrease, and the employee will react negatively, for instance by becoming dissatisfied and demotivated (Greenberg, 1987). Conversely, perceptions of outcome fairness are related positively to reactions to decisions (Greenberg, 1987).

3.2 Procedural Justice

While distributive justice theory is relevant to employee reactions to performance appraisal, procedural justice theory has had the greatest impact on the performance appraisal literature (e.g. Folger et al., 1992). Reactive process theories, i.e. procedural justice theory, stipulate that to the extent processes and procedures used to arrive at a decision are fair, perceptions of procedural justice increase, as will the acceptance of and reactions to the outcome of the process (Greenberg, 1987; 1990).

There are several theories of procedural justice, all of which assume that perceptions of the fairness of processes by which decisions are made are related to reactions to those processes and their decision outcomes, but that differ in the way procedural justice is conceptualized. Seminal work by Thibaut and Walker (1975) indicated that disputants in a dispute-resolution context desired both decision control, i.e. control over the ultimate outcome of the process, and process control, i.e. control over the procedures used to arrive at an outcome. While the focus of Thibaut and Walker (1975) was on legal contexts, the theory was effectively applied to a variety of human resource systems, foremost among them being performance appraisal. Performance appraisal research has consistently documented that the opportunity to express oneself and one's

viewpoints during an appraisal is related to employee reactions to the appraisal (Cawley et al., 1998).

While the control perspective developed by Thibaut and Walker (1975) has been influential in organizational research, other conceptualizations of procedural justice have been proposed, which have been applied to the performance appraisal context. Notably, Lind and Tyler (1988) proposed the self-interest and group-value models of procedural justice, providing rationale for why fair processes are related to procedural justice perceptions. The self-interest or instrumental model of procedural justice proposes that people want voice in processes because they can more effectively influence the outcome of the processes, which is similar to the decision control perspective above. The group-value or value-expressive model, on the other hand, contends that the opportunity to express one's viewpoint in a process has justice-enhancing properties, regardless of the extent to which outcomes are actually affected, because this opportunity reflects group status. As applied to organizational research, the group value model suggests that employees value voice and participation in decision-making processes that affect them, such as performance appraisal, because it demonstrates that they are a valued party to a long-term social exchange, and that authorities value their input (e.g. Tyler, 1989).

The process control, self-interest and group-value models of procedural justice have greatly informed and influenced performance appraisal research, especially in terms of the fairness of performance appraisals. That said, Leventhal's (1980) model of procedural justice elements is also relevant to employee reactions. The author proposed that there are specific criteria by which processes such as performance appraisal are evaluated in terms of fairness, namely: bias suppression, consistent allocation of rewards,

reliance on accurate information, the correctability of allocation decisions, the representativeness of decisions as related to each party's concerns, and the extent to which allocation decisions are based on moral and ethical standards. As will be explained in more detail later, this model of procedural justice is highly consistent with the due process model of performance appraisal (Folger et al., 1992).

3.3 Interactional Justice

Interactional justice represents the fairness of interactions through which decision-making processes occur, e.g. interactions with one's supervisor during a performance appraisal (Bies & Moag, 1986; Bies, 1987). Some scholars have proposed that interactional justice is an aspect of procedural justice, whereas others have suggested that interactional justice is a distinct concept which can be further decomposed into interpersonal and informational justice factors (Greenberg, 1993). Empirical research generally supports the contention that interactional justice is distinct from procedural justice (Colquitt, 2001; Colquitt et al., 2001). This theory and research proposes that when employees feel that they have been treated fairly interpersonally, perceptions of ineractional justice will increase, which will affect reactions to those persons with whom interactions occur, as well as the organizational systems that constrain and determine these reactions (Bies & Moag, 1986; Colquitt et al., 2001; Greenberg, 1983)

3.4 Research Supporting the Theoretical Distinctions Between Justice Dimensions

Since most of the organizational justice research has focused on distributive and procedural justice, one of the primary ways in which researchers have established that these two dimensions are distinct, i.e. a two-factor model or differential effects approach (e.g. Ambrose, Hess, & Ganesan, 2007) is to demonstrate their differential relationships

with correlates. Theoretically, procedural justice should be related to variables that reflect long-term relationships, e.g. between employees and their supervisor or their organization, whereas distributive justice should be related to specific outcomes (Lind & Tyler, 1988; Greenberg, 1990). Indeed, organizational justice research has indicated that procedural justice is related to variables that reflect relationship-oriented attitudes, whereas distributive justice is related to variables that reflect outcome satisfaction (Folger & Konovsky, 1989; McFarlin & Sweeney, 1992).

Colquitt (2001) also demonstrated that interactional justice is distinct from both distributive and procedural justice. The author found support for the construct validity of a four-factor model of organizational justice (i.e. distributive, procedural, interpersonal and informational) in two separate studies. Not only were the factors empirically distinct, they were differentially related to respective correlates. In study 1, for instance, the author proposed that distributive justice should be uniquely related to outcome satisfaction; that interactional justice should predict evaluations of the agents that enact processes, whereas procedural justice should predict evaluations of the processes themselves; and that informational justice should be uniquely related to collective self-esteem, since it is related to reduced secrecy and dishonesty. The proposed model was supported, except that a path from procedural justice to leader evaluation was added. This added path is also consistent with procedural justice theory which in that procedural justice perceptions reflect not only evaluations of systems, but also of the agents involved in administering those systems, as will be seen in Chapter 4.

Meta-analytic studies have also supported the distinctiveness of the aforementioned justice dimensions. Cohen-Carashand Spector (2001) conducted a meta-

analysis of the organizational justice literature, focusing on differential relationships between justice constructs and various correlates. They found that the "big three" (Colquitt et al., 2001) justice constructs were moderately correlated, but distinct. The authors did not separate interpersonal from informational justice because of the debate about the theoretical meaningfulness of separating the constructs, and because too few studies reported differential correlations. Also as expected based on theory, the three types of justice, i..e. distributive, procedural and interactional, were differentially related to constructs representing outcomes, organizational procedures and interpersonal treatment, respectively.

Colquitt and colleagues (2001) also conducted a meta-analysis of the organizational justice literature. Their study included meta-analytic estimates of relationships between procedural justice, interactional justice, interpersonal justice distributive justice, overall procedural fairness perceptions and correlates such as trust, outcome satisfaction, job satisfaction, organizational commitment and evaluation of authority. Like Cohen-Carashand Spector (2001), the authors found that justice dimensions were positively correlated, but represented distinct constructs, and were related differentially to correlates in expected ways.

It should be noted that some of the relationships reported in the Colquitt et al. (2001) study are relevant theoretically to the present study, such as relationships between justice and trust and outcome satisfaction. Indeed, several studies in the present database were included in the Colquitt et al. (2001) study. The focus of the present study is on estimating relationships between performance appraisal context and employee reactions, as opposed to substantive relationships with justice constructs and various correlates.

Moreover, the constructs included in the Colquitt et al. (2001) study were more general than those in the present study. For instance, while the authors estimated relationships between justice dimensions and outcome satisfaction, outcome satisfaction was not restricted to performance appraisal satisfaction. Moreover, perceptions of justice were not necessarily related specifically to the performance appraisal context. Thus, previous meta-analytic research is supportive of the hypotheses developed below, but does not necessarily mean that relationships will be of the same form or magnitude in the present study.

In the sections below, hypotheses will be developed based on organizational justice theory that involve differential relationships between contextual antecedents and justice constructs. I hypothesize that social contextual variables will be more strongly related to interactional justice than procedural and distributive justice. Differential predictions between justice dimensions and employee reactions will not be made since these reactions do not neatly map onto the types of attitudes typically studied as outcomes of justice perceptions in the organizational behavior/human resource management literature (see Colquitt et al., 2001; Greenberg, 1990).

Consistent with existing theory and research, a three-factor model of organizational justice will be adopted for the current study. Similar to other meta-analyses (i.e. Cohen-Carash & Spector, 2001), the present study does not differentiate between informational and interactional justice since there is some debate about whether or not informational and interpersonal justice should be treated separately (Ambrose, Hess, & Ganesan, 2007; Cohen-Carash& Spector, 2001; Greenberg, 1993), and since too

few studies in the current database measured these constructs separately as to be able to make consistent, meaningful distinctions.

Summary

The preceding chapter explained the concept of organizational justice, introduced theories related to the different types of organizational justice, and reviewed literature which has demonstrated the construct and differential validity of these justice dimensions. Cumulatively, construct validity and differential effects approaches have demonstrated that the aforementioned justice dimensions, i.e. distributive, interactional and procedural, and related in unique ways to important organizational attitudes and behavior (Cohen-Carash& Spector, 2001; Colquitt, 2001; Colquitt et al., 2001; Greenberg, 1990). In the following two chapters, theory and research in the organizational justice literature will be used to develop hypotheses about relationships between performance appraisal contextual variables and employee reactions.

CHAPTER 4

A REVIEW AND INTEGRATION OF CONTEXTUAL ANTECEDENTS OF EMPLOYEE REACTIONS PART I: THE SOCIAL CONTEXT OF APPRAISAL

A significant limitation of existing models of the appraisal process is that they do not clearly represent how contextual variables are related to the employee reactions typically studied in the literature. Indeed, existing models of the appraisal process are not models of employee reactions per se. Yet there is a need for such a model given the importance of employee reactions to appraisal effectiveness. Thus, a primary purpose of this dissertation is to develop such a model.

The purpose of the following two chapters is to review and organize the existing literature related to employee reactions by creating an integrative framework that more effectively organizes and models the contextual antecedents of employee reactions. Murphy and Cleveland (1995) defined performance appraisal context as "a heterogeneous mix of factors, ranging from the social and legal system in which the organization exists to the climate and culture within the organization" (pg. 31). While the appraisal context in general may be heterogeneous, a thorough review of the employee reaction literature identified two major categories of contextual variables as antecedents of employee reactions: 1) the social context of appraisal (Levy & Williams, 2004), and 2) due process performance appraisal characteristics (Folger et al., 1992), which includes participation in the appraisal (Cawley et al., 1998).

A graphic illustration of this framework is provided in Figure 1. Like other conceptual models involving multiple meta-analytic estimates (e.g. Cohen-Crash & Spector, 2001), this illustration is not meant to identify all of the hypotheses or

relationships that will be proposed in this study, or all of the potential relationships between constructs. Instead, the figure is meant to a) group the constructs that are included in the two major categories of contextual antecedents of employee reactions and b) illustrate that perceptions of organizational justice are hypothesized to mediate relationships between contextual antecedents and employee reactions.

Scholars have proposed various models of contextual aspects of performance appraisal (Erdogan, 2002; Levy & Williams, 2004; Murphy & Cleveland, 1995), but they do not always deliberately consider employee reactions as criterion of the appraisal. For instance, the model of antecedents and consequences of justice perceptions in performance appraisal proposed by Erdogan (2002) includes justice perceptions as a mediator of the relationship between contextual antecedents and job-attitudes and performance, but does not include other commonly studied employee reactions as outcome variables, besides motivation to improve. The model of the social context of appraisal developed by Levy and Williams (2004) considers employee reactions and justice perceptions as outcome variables, but they also include performance ratings and "rater/ratee behavioral reactions" as "rater and ratee behavior" outcomes. Models of the performance appraisal context also regularly include distal factors which may be relatively unrelated to employee reactions, such as legal (e.g. Murphy & Cleveland) and economic (Levy & Williams, 2004) conditions.

As a group, existing models also suffer from inconsistent categorizations of antecedent constructs. More specifically, existing models of contextual antecedents sometimes consider the same variables, but categorize them using different labels, depending on the specificity of the particular model (as will be demonstrated in more

detail below). An additional limitation of exiting models is that they do not represent the types of constructs that are typically measured in research reports. Since these constructs are consistently measured as antecedents, and they are related in important ways theoretically to employee reactions, it is concerning that existing models do not take into consideration the types of relationships being modeled in individual studies. A related problem with the employee reaction literature is that it is lacking a cohesive framework, as noted in detail above.

The sections immediately below review and integrate the research literature on the social context of appraisal. Chapter 5 will review and integrate the literature on due process characteristics of performance appraisal as related to employee reactions.

4.1 An Overview of The Social Context of Performance Appraisal

Relatively recent models of performance appraisal have proposed that the social context of performance appraisal is an important area of research inquiry (i.e. Erdogan, 2002; Levy & Williams, 2004; Murphy & Cleveland, 1995). Indeed, some scholars have argued that the social context of performance appraisal is the key context to study as related to employee reactions (e.g. Russel & Goode, 1988). The model developed by Erdogan (2002), for instance, included leader-member exchange as a "contextual factor", and impression management as a "rater behavior" (pg. 559). Similarly, the model developed by Levy & Williams (2004) includes leader-member relationship quality, supervisor trust and impression management as "proximal process variables"; this category of variables also includes system-related variables, such as previous performance ratings, however.

While these models have highlighted the importance of social context, they have done so using different taxonomies. These constructs can more efficiently and meaningfully be categorized as the *social context of performance appraisal.* Being conceptually related to rater-ratee relationships (Pichler, Varma, & Petty, 2008), these constructs should be related in similar ways to employee reactions, and should thus be treated as a group of similar antecedents.

My review of the employee reaction literature identified four constructs related to the social context of performance appraisal as correlates of employee reactions: i) rater-ratee[4] relationship quality, ii) supervisor trust, iii) social support and iv) supervisor satisfaction[5]. Studies involving these constructs often employ theories of social exchange, such as organizational justice, to develop hypotheses about relationships between these constructs and employee reactions. Indeed, organizational justice theory serves as a useful framework for linking social contextual variables to employee reactions, as will be articulated later in this study. For now, it is important to understand what each of these constructs represents and how they are being operationalized in the literature,.

4.2 Relationship Quality

Relationship quality can be described as the extent to which a rater and a ratee have a working relationship characterized by a high-quality social exchange, which can include characteristics such as mutual trust and social support (Dansereau, Graen, & Haga, 1975; Pichler et al., 1998). Seven studies measured the relationship between

[4] The term "rater" is used to refer to the person conducting the appraisal, and is used interchangeably with terms such as "supervisor" and "manager" in the literature and in this study. The term "ratee" is used to refer to the person being evaluated in the appraisal, and is used interchangeably with terms like "employee" and subordinate in the literature, and in this study.

[5] While this review is not meant to be exhaustive, i.e. to describe all of the constructs that have been measured as correlates of employee reactions, this review is representative of the literature in the sense that any relevant construct that was measured across multiple studies is included.

supervisor-subordinate relationship quality and employee reactions to performance appraisal, and researchers have most often used measures of leader-member exchange quality to operationalize relationship quality.

For instance, Dulebohn and Ferris (1999), Dobbins and colleagues (1990), Elicker (2000), Klein and Snell (1994), Orpen (1995), and Roberson and colleagues (1993) measured relationship quality in terms of exchange quality, but they used different published scales. Dulebohn & Ferris (1999) used a measure validated by Wayne and Ferris (1990), Elicker used a measure validated by Scandura and Schriescheim (1994), and Klein and Snell, Orpen (1995), and Robeson and colleagues (1993) used a measure validated by Dansereau, Graen and Haga (1975). Finally, Nathan and colleagues (1991) used a measure of the quality of rater-ratee interpersonal relations using semantic differential scales.

The reactions measured as criteria also varied across studies. Reactions that were measured in multiple studies include procedural justice (Dulebohn & Ferris, 1999; Elicker, 2000), session satisfaction (Nathan et al., 1991; Roberson et al., 1993), motivation to improve (Elicker, 2000; Orpen, 1995), and a composite of reactions (Dobbins et al., 1990; Klein & Snell, 1994; Orpen, 1995). Researchers have also measured the relationship between relationship quality and accuracy, distributive justice, interpersonal justice, utility (Elicker, 2000), and appraisal quality (Nathan et al., 1991).

While the way in which relationship quality was operationalized across studies varies somewhat, it is clear that each measure represents the quality of the rater-ratee relationship (Pichler, Varma, & Petty, 2008). Given that all but one of the studies mentioned above measured relationship quality in terms of exchange quality, the leader-

member exchange literature provides a particularly useful framework for understanding this construct. Moreover, leader-member exchange theory also illuminates how each of the constructs identified as aspects of the social context of appraisal are interrelated. Each of the constructs below, i.e. trust, social support and satisfaction, represent aspects of relationship quality, or a high-quality leader-member exchange.

Unlike more traditional leadership theories, leader-member exchange theory contends that characteristics of the dyadic relationship, as compared to characteristics of the leader, are predictive of outcomes at multiple levels of analysis, i.e. the employee, dyadic, group and organizational levels of analysis (Gerstner & Day, 1997). According to leader-member exchange theory, leaders (supervisors) do not treat all members (subordinates) equally, but form different exchange relationships, i.e. of high and low quality, with members (Dansereau, Graen, & Haga, 1975). High quality relationships are characterized by increased levels of mutual trust, social support and member satisfaction, whereas low-quality relationships are characterized by lower levels of these characteristics (Dansereau, Graen, & Haga, 1975; Liden, Sparrowe, & Wayne, 1997). Thus, each of the constructs below can be thought of as aspects of relationship quality.

Research also indicates that members in high quality relationships receive preferential treatment, such as increased participation in the appraisal context (Wexley & Klimoski 1984). Indeed, Cleveland and Murphy (1992) posited that exchange quality should affect how supervisors treat employees in the appraisal process because theory and research suggest that members in high-quality dyadic relationships receive greater amounts of information and are allowed greater upward influence in decisions (Dansereau et al., 1975). Perhaps because of this, leader-member exchange research has

shown that in-group members perceive higher levels of trust in leaders than out-group members (Dienesch, & Liden, 1986), and that in-group members even receive higher performance ratings (Wayne, & Liden, 1995) than do out-group members.

4.3 Supervisor Trust

The preceding section documented that high quality supervisor-subordinate relationships are characterized by increased trust (Dansereau et al., 1975; Dienesch, & Liden, 1986). *Trust* involves an expectation that the parties involved in a relationship will behave ethically, i.e. treat each other with fairness (Hosmer, 1994). Supervisor trust, i.e. the perception among ratees that one's supervisor is trustworthy, was measured in five studies in the employee reactions literature. The measures used to capture this construct differ across studies, but still reflect the same underlying construct.

For instance, Hubbell and Chory-Assad (2005) used a measure of managerial trustworthy behaviors based on social exchange theory, which included items related, for instance, to truth-telling and behavioral consistency. Folger and Konovsky used a measure of supervisor trust developed by Roberts and O'Reilly (1974). Kinicki, Prussia, Wu, and McKee-Ryan (2004) used a single item, which measured the extent to which the ratee believes he or she can trust what the rater says. Korsgaard and Roberson (1995) used a measure of supervisor trust developed by Cook and Wall (1980), which included items about supervisor honesty and trustworthiness. Lee and Akhtar (1996) used what appears, based on the report, to be a single-item measure of supervisory trust, which reflected the extent to which the ratee trusts the rater in the appraisal context.

Researchers have measured relationships between supervisor trust and several employee reaction criteria, i.e. accuracy (Kinicki, Prussia, Wu, & McKee-Ryan, 2004),

distributive justice (Folger & Konovsky, Korsgaard & Roberson, 1995), session satisfaction (Korsgaard & Roberson, 1995), interactional justice, procedural justice (Hubbell & Chory-Assad, 2005), and motivation to improve (Kinicki, Prussia, Wu, & McKee-Ryan, 2004; Lee & Akhtar, 1996).

4.4 Supervisor Support

As explained above, supervisor support is also an important aspect of relationship quality. Social support is the perception that one's partner in a social exchange provides supportive behavior in the workplace, and the social support literature (House, 1981; Caplan et al., 1975, 1980) emphasizes three types of support: emotional, informational and instrumental (House, 1980).The workplace-related social support literature typically focuses on support from supervisors (LaRocco, House and French, 1980), which, in the performance appraisal literature, measures the extent to which one's supervisor exhibits supportive appraisal-related behavior. Four studies measured relationships between supervisor support and employee reactions.

For instance, Burke, Weitzel, and Weir, (1978) and Burke and Wilcox (1969) measured the extent to which one's supervisor was "constructive and helpful" in the appraisal using a one-item scale. Nemeroff and Wexley (1979) developed and used a multi-item scale, "supportive appraisal behavior", which similarly measured constructive supervisory behaviors, such as praising ratees for good performance, and other helpful behaviors, such as scheduling follow-ups (pg. 27). Giles and colleagues (1997) developed a measure of supervisor support, which included four items related to helpful supervisor behaviors.

While researchers have used somewhat different operationalizations of supervisor support, there has been some consistency in the reaction criteria measured as correlates of support. Burke, Weitzel, and Weir, (1978), Burke & Wilcox (1969) and Nemeroff and Wexley (1979) measured session satisfaction as well as motivation to improve, and Giles and colleagues and Burke et al. (1978) measured overall fairness. Researchers have also measured reaction criteria such as interpersonal (Burke et al., 1978) and informational justice (Giles et al., 1997), as well as utility (Burke et al., 1978).

4.5 Supervisor Satisfaction

Closely related to rater-ratee relationship quality (as perceived by the ratee) is supervisor satisfaction, i.e. the extent to which a ratee is satisfied with the supervision he or she receives. Indeed, research has found that members in high-quality relationships are more satisfied with their supervisors (e.g. Liden et al., 1997). Four studies in the employee reaction literature included this construct. Since the aforementioned constructs, i.e. relationship quality, supervisor trust, supervisor support should all predict supervisor satisfaction, one might think of this construct as an omnibus representation of the social context of appraisal, at least in terms of its potential to represent, in an overall sense, the extent to which ratees feel satisfied with their supervisors.

Supervisor satisfaction has been measured in the employee reaction literature using the scale developed by Hackman and Oldham (1975) (i.e. Elicker, 2000), scales developed by authors for the purposes of their study (Giles & Mossholder, 1990), and single items (Gaby, 2004; Nathan et al., 1991). Despite this variability in measurement, each of these measures reflects the extent to which a ratee is satisfied overall with his or her supervisor.

Researchers have found relationships between supervisor satisfaction and session satisfaction (Gaby, 2004; Giles & Mossholder, 1990; Nathan et al., 1991), motivation to improve (Elicker, 2000; Gaby, 2004), utility (Elicker, 2000; Nathan et al., 1991) interpersonal justice (Elicker, 2000; Gaby, 2004) and distributive justice (Elicker, 2000; Gaby, 2004), as well as accuracy, procedural justice, utility (Elicker, 2000), feedback satisfaction, informational justice (Gaby, 2004), system satisfaction (Giles & Mossholder, 1990), and quality (Nathan et al., 1991).

4.6 Relationships Between Social Contextual Variables and Employee Reactions

While relationship quality, supervisor trust, supervisor support and supervisor satisfaction represent distinct constructs in the employee reaction literature, and the organizational behavior literature more generally, the preceding section noted that these constructs are overlapping conceptually in that they all represent the social context of performance appraisal. Moreover, since leader-member exchange theory has proposed and documented that supervisor trust and support are aspects of exchange quality (Dansereau et al., 1975), one would expect that these constructs would be related in similar ways to reaction criteria. In fact, Johnson (2003) measured leader-member exchange and supervisor trust and found, through factor analysis, that the scale items best represented a single, unidimensional factor, not two separate factors. And while the studies outlined above have measured a variety of reaction criteria, which would appear problematic in that researchers are apparently not measuring similar substantive relationships across studies, there are some notable consistencies in terms of measured relationships between social contextual variables and employee reactions, which are consistent with theory.

For instance, across studies which measured both social contextual and employee reaction variables, the following constructs were included as reactions in at least three studies[6]: distributive justice (Elicker, 2000; Folger & Konovsky, 1989; Gaby, 2004; Korsgaard & Roberson, 1995), interactional justice[7] (Burke et al., 1978; Elicker, 2000; Gaby, 2004; Giles et al., 1997; Hubbell, & Chory-Assad, 2005) motivation to improve (Burke, Weitzel, & Weir, 1978; Burke & Wilcox, 1969; Nemeroff & Wexley; 1979; Elicker, 2000; Gaby, 2004; Kinicki, Prussia, Wu, & McKee-Ryan, 2004; Lee & Akhtar, 1996; Orpen, 1995), procedural justice (Dulebohn & Ferris, 1999; Elicker, 2000; Hubbell & Chory-Assad, 2005), session satisfaction (Burke, Weitzel, & Weir, 1978; Burke & Wilcox, 1969; Gaby, 2004; Giles & Mossholder, 1990; Korsgaard & Roberson, 1995; Nathan et al., 1991; Nemeroff & Wexley, 1979; Roberson et al., 1993), and utility (Burke et al., 1978; Elicker, 2000; Nathan et al., 1991).

While these reaction criteria were not invariably measured specifically as outcome variables (some were used as covariates or control variables), the preceding paragraph illustrates the consistency by which certain reaction criteria were considered as correlates of social contextual variables. What is perhaps more notable here is that all three primary types of organizational justice (distributive, procedural and interational) were measured as correlates of social context. This may be surprising since one would expect that social context should be uniquely related to employee perceptions of interactional justice. In fact, scholars have assumed that supervisor treatment is related

[6] The decision to use at least three studies as a cutoff is not only for illustrative purposes, but for analytical purposes related to meta-analysis, as will be described in more detail in the Methods section.
[7] Too few studies measured interpersonal and informational justice as related to social contextual variables as to treat them separately.

distinctly to interactional justice perceptions as compared to procedural justice (e.g. Moorman, 1991), which is related distinctly to the fairness of organizational procedures.

Including all three types of justice as correlates of social contextual variables makes sense, however, when considering the social exchange literature. That is, the leader-member exchange literature would suggest that higher quality relationships, characterized by exchange quality, supervisor trust, support and satisfaction, should be related to better treatment in the appraisal context (Cleveland and Murphy, 1992; Wexley & Klimoski 1984), not only in terms of interpersonal treatment (interactional justice), but also in terms of decision influence and voice. Research has also indicated that exchange quality is positively related to performance ratings (Wayne & Liden, 1995).

Extending this argument, the decision control (Thibuat & Walker, 1975) and self-interest (Lind & Tyler, 1988) models of procedural justice would also suggest that with increased decision control in the appraisal process, perceptions of procedural justice will increase. The group value model of procedural justice would suggest that with increased voice in the appraisal, perceptions of procedural justice will increase. Of course, if one perceives the one has influenced the decision of the appraisal, i.e. one's performance rating, perceptions of distributive justice should also increase (Greenberg, 1987; Greenberg, 1990). If social context is indeed related to rating favorability, this is also an explanation for why social context should be related to perceptions of distributive justice (Greenberg, 1987; Greenberg, 1990).

Hypothesis 1: Social contextual variables will be positively related to a) interactional justice perceptions, b) procedural justice perceptions, and c) distributive justice perceptions.

While the sections above argue that social contextual variables should theoretically be related to interactional, procedural and distributive justice perceptions, it is clear that organizational justice theory would argue that social contextual variables should be most strongly related to interactional justice. That is, interational justice theory proposes that fair interpersonal treatment should increase perceptions of interactional justice. Meta-analytic evidence too is consistent with the notion that social contextual variables should be most strongly related to perceptions of interactional justice since they should be related to more positive interpersonal treatment (Cohen-Carash& Spector, 2001; Colquitt et al., 2001). This is important to test in order to be consistent with and further test the robustness of organizational justice theory.

Hypothesis 2: Social contextual variables will be most strongly related to interactional justice perceptions.

What is also notable here is that motivation to improve, session satisfaction and utility were measured most often as correlates of social contextual variables. System satisfaction was not measured as a reaction criterion, which is intuitive since system satisfaction should be uniquely related to characteristics of the performance appraisal system (Keeping & Levy, 2000), as opposed to social contextual constructs. Organizational justice theory is also informative as to why these criteria should be related to social contextual variables.

Since the fairness of the treatment one receives in one's work group signifies the extent to which one is a valued member of that group (Lind & Tyler, 1988; Tyler, 1989), and being a valued group member should predict to one's future inputs into a long-term social exchange, one would expect that social contextual variables would be related to

motivation to improve, through their effects on interactional and procedural justice. Of course, being involved in a high-quality relationship should be directly related to motivation to improve based on the norm of reciprocity (Gouldner, 1960), but this should be enhanced due to perceptions of fairness, since fair treatment is what actually signifies one is a valued group member (Lind & Tyler, 1988).

Interactional and procedural justice should similarly explain the relationship between social context and session satisfaction and utility. That is, if ratees desire to be a valued group member, which is supported by perceptions of interactional and procedural justice, then one's satisfaction with the appraisal session should also increase, as should perceptions of the overall utility of the appraisal. Being involved in a high-quality relationship should be directly related to session satisfaction and utility, since so-called in-group members likely receive preferential treatment in the appraisal (Wexley & Klimoski 1984; Cleveland & Murphy, 1992). This preferential treatment should increase the perception that one is a valued group member by increasing perceptions of interactional and procedural justice, which should increase one's satisfaction with the appraisal, as well as one's perception that the appraisal was valuable.

Since distributive justice is theoretically a key antecedent of employee motivation, satisfaction with organizational systems such as performance appraisal (session satisfaction), and perceptions related to the value or utility of these systems (e.g. Greenberg, 1987), one would also expect distributive justice perceptions to mediate the relationship between social context and these employee reactions, since social contextual variables are positively related to distributive justice perceptions.

Hypothesis 3: Perceptions of organizational justice (distributive, procedural and interactional) will partially mediate relationships between social contextual variables and employee reactions.

Previous models of the performance appraisal process have positioned social exchange constructs such as leader-member exchange as outcomes of the appraisal (Masterson et al., 2000). The present model instead proposes that high quality supervisor-subordinate relationships should affect ratee perceptions of justice in the appraisal process, and ultimately their reactions to the appraisal, which is congruent with organizational justice theory (Greenberg, 1993) and social exchange theory (Liden, Sparrowe, & Wayne, 1997). Since the social context literature has been lacking an explication of the processes whereby social context is related to employee reactions, the hypotheses developed above explicate these processes, and are consistent with existing models of the appraisal process.

For instance, Inderrieden, Keaveny, and Allen (1988) posited that performance appraisal should be treated as a process, and not a single event. Likewise, they suggested that while the actual performance evaluation is itself a process, it is important to understand how rater-ratee interactions that precede the evaluation impact reactions to the evaluation. Likewise, Klein, Snell and Wexley (1987) developed a model of the appraisal process, which proposed that the appraisal is comprised of three sets of variables: inputs (the appraisal context, e.g. relationship quality), throughputs (the appraisal session, e.g. participation), and outputs (reactions). Their process model posits that the organizational context within which the appraisal takes place affects the interaction that occurs during the actual appraisal session, which then determines how ratees react to the session. The

hypotheses developed above build upon this process model by developing specific relationships between inputs, throughputs and outputs, and by articulating the role of organizational justice perceptions in the process.

Summary

Scholars have duly noted the importance of social context in the performance appraisal process. Models of the appraisal process have grouped social contextual variables in categories such as "process proximal variables" (Levy & Williams, 2004) along with unrelated constructs, such as group/task characteristics and organizational policies (pg. 884). Other models consider social contextual variables, but include these as "contextual factors" along with other broader contextual variables such as organizational culture (Erdogan, 2002, pg. 559). Grouping relatively unrelated variables together into similar conceptual groups can lead to confusion in terms of how the performance appraisal context should actually be characterized. Moreover, no existing model or review has systematically identified the social contextual constructs that are commonly studied in the employee reaction literature.

The preceding section, therefore, reviewed and described the social contextual constructs which are actually being included in studies of employee reactions, described how these constructs are being measured, outlined how these constructs are interrelated, described the types of reaction criteria these constructs should be related to, and identified the explanatory mechanisms whereby social contextual constructs are related to employee reactions. This chapter proposed that it is best to categorize these constructs as part of the *social context* of performance appraisal, or *social contextual constructs*.

CHAPTER 5

A REVIEW AND INTEGRATION OF CONTEXTUAL ANTECEDENTS OF EMPLOYEE REACTIONS PART II: THE DUE PROCESS MODEL OF PERFORMANCE APPRAISAL

The preceding chapter reviewed and integrated the literature on the social context of performance appraisal as related to employee reactions. The purpose of this chapter is to similarly review and integrate the literature on due process performance appraisal with literature on employee reactions. In support of using a due process approach to performance appraisal, Taylor and colleagues (1995) described performance appraisal as "one of the great paradoxes of effective human resource management" in that appraisals have the potential to provide valuable feedback to employees and enhance the effectiveness of other human resource management systems, but this potential is often unrealized because of negative employee reactions, due in part to a lack of due process. Folger and colleagues (1992) developed a due process model of performance appraisal based on due process of the law, with the purpose of increasing fairness in appraisal systems, and increasing appraisal effectiveness through positive reactions to these systems. See Appendix A for a description of due process performance appraisal dimensions and sub-dimensions.

5.1 The Psychometric and Due Process Models Performance Appraisal

Folger and colleagues (1992) developed the due process model of performance appraisal in response to what they call the "test metaphor" of performance appraisal, which parallels the psychometric model of performance appraisal as described above in Chapter 2. Both the test metaphor and psychometric model of performance appraisal

assume that rating accuracy is the key criterion of appraisal effectiveness. As Folger et al. (1992) point out, the test metaphor of performance appraisal relies on several tentatively held assumptions: that work performance can be measured validly and reliably; that raters are able to rate performance accurately; and that an ultimate criterion of performance exists, which performance can be evaluated against. These assumptions, and the test metaphor which they comprise, have been criticized given research which indicates that raters are susceptible to a variety of rating errors, and that raters are biased by political processes and motivational constraints (Folger et al., 1992). Thus, scholars have begun to redefine appraisal effectiveness according to employee reactions, as opposed to test accuracy (see also Chapter 2).

The due process model of performance appraisal (Folger et al., 1992), on the other hand, is based on principles of the due process of law, which is proscribed by the Fifth and Fourteenth amendment to the U.S. Constitution. Collectively, these amendments enhance fairness in legal proceedings by requiring adequate notice, i.e. the publication and communication of laws, a fair hearing (meaning all relevant information is presented and the accused has the right to present evidence and have voice in legal proceedings) and judgment based on evidence (meaning decisions are free from bias) (Folger et al., 1992).

While researchers have not used the due process performance appraisal model explicitly to study appraisal employee reactions such as fairness, much of the extant research can be organized using this rubric. For instance, the seminal study by Greenberg (1986) identified factors that represented fairness in appraisals, such as employee input before the appraisal (adequate notice), rater familiarity with employee work performance

(fair hearing), and consistent application of standards (judgment based on evidence). In fact, while less than a handful of studies on employee reactions have explicitly used the due process performance appraisal model to study relationships between the appraisal context and employee reactions (e.g. Taylor, Masterson, Renard, & Tracy, 1998), in part due to the timing of the publication of the due process appraisal model (Folger et al., 1992), many of the studies on employee reactions can be organized using this framework, as will be seen below. Please see Table 2 for a visual display of due process performance appraisal dimensions, sub-dimensions and associated chapter sections.

5.2 Adequate Notice

As applied to performance appraisal, the adequate notice dimension of due process holds that employees should be accountable for performance standards that they are aware of and understand. Allowing employee input into the standard-setting process and disseminating performance standards before the appraisal session can increase employee awareness and understanding. The adequate notice dimension also holds that employees should receive frequent feedback regarding their performance throughout the appraisal process.

Scholars have noted that managers have difficulty in controlling their natural tendencies toward involving subordinates in the appraisal process (French, Kay & Meyer, 1966), and that they have a great deal of discretion when it comes to conducting performance appraisals (Murphy & Cleveland, 1991). This is why organizations implement due process appraisal systems—to address variability between raters in appraisal-related behavior (Folger et al., 1992). Researchers have also noted that some of

these features are more system-related, whereas others are relatively supervisor-initiated (Erdogan et al., 2001; Murphy & Cleveland, 1991).

Adequate notice in the form of knowledge of performance standards is transparently more system-oriented than is its counterpart, feedback frequency. Knowledge of performance standards is related to the publication and dissemination of performance objectives, which is often an organizational – not supervisory - function, and is oftentimes gained from employee initiative (e.g. Levy & Williams, 2000). Feedback frequency, on the other hand, reflects how often raters provide ratees with feedback, which is generally discretionary (Murphy & Cleveland, 2001). Considering these differences, hypotheses related to the two types of adequate notice will be developed separately.

Knowledge of performance standards. Ten studies (twelve unique samples) in the employee reaction literature measured the construct of adequate notice in the form of *knowledge of performance standards*, although using different operationalizations. Buehler (2006) deliberately measured multiple aspects of adequate notice as aspects of due process performance appraisal, including discussion of expectations, employee training on evaluation, employee input on evaluation, and employee input on goals, which formed a composite variable, adequate notice. Erdogan, Kraimer and Liden (2001) measured knowledge of appraisal criteria using a single item, "Before the performance appraisal, I was familiar with the criteria by which my performance was appraised" (pg. 213). Evans and McShane (1998) measured goal establishment, or the "establishment of specific and relevant job goals" (pg. 177), which is different from goal setting in the appraisal interview, which the authors also measured. Inderriden, Allen and Keavey

(2004) measured employee knowledge of performance standards using a six-item scale developed by the authors, which captured "the extent to which the respondent was informed of performance standards" (pg. 470). Inderrieden, Keaveny and Allen (1988) measured participation in setting standards using a single item. Levy and Williams (1998) and Williams and Levy (2000) measured perceived system knowledge based on the due process model, i.e. "the extent to which individuals perceive that they understand the objectives of the appraisal system, how the appraisal process works, and the overall goal of the appraisal process" (pg. 54). Tang and Sarsfield-Baldwin (1996) measured performance appraisal clarity using three items, which measured, for instance, "how much information was given... about the performance appraisal criteria used for your evaluation" (pg. 23). Thurston (2001) measured setting criteria using several items, such as "my organization requires supervisors to set, publish and distribute standards and criteria before evaluating their employees" (pg. 49).

While the specific measures used vary, these variables all reflect the construct adequate notice, and specifically refer to employee knowledge of performance standards prior to a formal appraisal. Extant findings are consistent across measures. For instance, researchers have found positive relationships between adequate notice and justice perceptions, including interactional justice (Buehler, 2000; Thurston, 2001); procedural justice (Buehler, 2000; Levy & Williams, 1998, Study 2; Williams & Levy, 2000); specific measures of procedural justice, i.e. rater procedural justice (Buehler, 2000), system procedural justice (Erdogan et al., 2001); and distributive justice (Buehler, 2006; Inderriden et al., 1988; Inderriden et al., 2004; Tang, & Sarsfield-Baldwin, 1996; Thurston, 2001). Researchers have also found positive relationships between adequate

notice and employee reactions, including overall fairness (Evans & McShane, 1988, both samples; Tang, & Sarsfield-Baldwin, 1996); motivation to improve (Buehler, 2006); and system satisfaction (Inderriden et al., 1988; Williams & Levy, 2000).

In fact, the knowledge of performance standards dimension of due process is consistent with multiple theories of procedural justice. For instance, the criterion that processes are based on prevailing moral and ethical standards (Leventhal, 1980) is fulfilled to the extent that it is unethical for employees to be kept unaware of the type of performance desired by one's employer. Knowledge of performance standards is also congruent with the self-interest model of procedural justice (Lind & Tyler, 1988), which posits that employees desire fairness in decision-making processes for self-serving interests. As applied to the current discussion, knowledge of performance standards allows an employee to match his or her work performance to a level required for optimal rewards. In this connection, knowledge of performance standards is also consistent with distributive justice theory (Greenberg, 1987; 1990) in that this knowledge should be related to an employee's ability to achieve a positive performance rating and, hence, desired rewards. Since knowledge of performance standards is relatively system-oriented, theory related to interactional justice does not lend itself well to understanding why this dimension might lead to increased perceptions of justice, which is perhaps why this type of justice was not regularly measured as a correlate. Based on this discussion, I expect that knowledge of performance standards will be positively related to a) procedural and b) distributive justice perceptions.

Organizational justice theory provides rationale for why knowledge of performance standards should be related to employee reactions. Procedural justice should

explain the relationship between knowledge of performance standards and motivation to improve, since this reflects one's inputs into a long-term social exchange relationship, whereas distributive justice should explain the relationship between knowledge of performance standards and appraisal (system) satisfaction, since this is an outcome-oriented reaction. Given that knowledge of performance standards is related to procedural and distributive justice, as well as fairness perceptions, both types of justice perceptions should explain why knowledge of standards is related to perceptions of overall appraisal fairness. The preceding discussion leads to the following hypothesis:

> Hypothesis 4: Procedural and distributive justice will partially mediate the relationship between knowledge of performance standards and employee reactions.

Frequency of feedback. Knowledge of performance standards prior to the performance appraisal session is one important aspect of adequate notice. The other aspect is frequent feedback. Frequent feedback is important because raters can communicate to ratees areas of performance that need improvement prior to the appraisal, allowing the ratee adequate notice as to how to receive a positive rating.

Feedback frequency has received relatively more attention than knowledge of performance standards in the broader performance appraisal literature. Indeed, empirical studies have shown that more frequent appraisals are related to employee reactions for some time now (e.g. Zander & Gyr, 1955). For instance, research has found that perceived accuracy of performance appraisal feedback is related to the frequency, specificity and sign of the feedback (e.g. Ilgen et al., 1979; Landy et al., 1978). In support of Larson's (1984) model of performance feedback, Kinicki, Prussia, Wu, and Mckee-

Ryan (2004) found that the feedback environment within which a performance appraisal occurs is best represented by multiple indicators of feedback quality, i.e. frequency, specificity and sign of feedback. The authors also found that cognitive variables, e.g. perceived accuracy and motivation to improve, mediated the relationship between appraisal context (feedback environment) and future job performance. Klein and Snell (1994) also noted that feedback frequency was important to consider in relation to employee participation in the appraisal to reactions.

The frequency of performance feedback clearly seems an important antecedent of employee reactions. Twelve studies (including fourteen unique samples) in the employee reaction literature included feedback frequency as a contextual variable; some of these studies (6 in total) were also studies that measured the knowledge of performance standards dimension of adequate notice.

Buehler (2006) measured the frequency and timelines of feedback one receives, to form a composite feedback variable. Dobbins, Cardy, & Platz-Vieno (1990) measured frequency of evaluation by asking the number of times one's performance was evaluated during the past year. Erdogan, Kraimer, & Liden (2001) measured performance feedback using items such as "I received continuous feedback about my performance during the appraisal period" (pg. 214). Evans & McShane (1988) (2 samples) measured appraisal frequency and follow-up using three items, which were based on scales used by previous authors in this group (e.g. Landy et al, 1978). Gaby (2004) measured appraisal frequency using three items, e.g. "My supervisor and I engage in frequent performance discussions" (pg. 52). Kinicki, Prussia, Wu, & Mckee-Ryan (2004) measured frequency of feedback by asking respondents "How often does your supervisor tell you how you are doing

overall" using a Likert-type scale (pg. 1061). Klein & Snell (1994) measured performance appraisal frequency in terms of the time since the employee's last performance review. Inderrieden, Allen, Keavey, (2004) used nine items to measure feedback through the evaluation period, e.g. "During the year, if my supervisor thought I could perform part of my job better, he/she would talk to me about it" (pg. 470). Inderrieden, Keaveny, & Allen (1988) measured "the degree of performance feedback (that) was received throughout the appraisal period " (pg. 308) using a single item. Landy, Barnes, & Murphy (1978) measured frequency by asking whether or not performance was evaluated at least once per year. Secunda (1984) (2 samples) measured frequency of evaluation using a single item. Thurston (2001) included a variable, providing feedback, using several items, such as "my rater frequently lets me know how I am doing" (pg. 53).

While the measures used to operationalize feedback frequency vary, the preceding paragraph indicates that they all represent the same construct, i.e. are intended to measure the extent to which performance feedback is regularly communicated. Researchers have found positive relationships between feedback frequency and perceptions of justice, including interactional justice[8] (Buehler, 2000; Gaby, 2004; Thurston, 2001); procedural justice (Buehler, 2000; Erdogan et al., 2001; both also measured rater procedural justice); and distributive justice (Buehler, 2006; Inderrieden et al., 1988; Inderrieden et al., 2004; Thurston, 2001).

For reasons similar to the knowledge of performance standards dimension of due process performance appraisal, feedback frequency should be related to perceptions of

[8] Too few studies separately measured interpersonal and informational justice to make meaningful distinctions.

procedural justice. That is, frequent feedback discussions increase the extent to which the appraisal can actually be based on valid and accurate information (Leventhal, 1980). Moreover, frequent feedback should also increase the perception that the performance appraisal process is fair, and that one is a valued group member (Lind & Tyler, 1988). If adequate notice should increase perceptions of distributive justice due to an increased awareness of how to link one's performance to valuable rewards (Greenberg, 1987; 1990), so too should frequent feedback. Frequent feedback should also be related to perceptions of interactional justice, since it is generally a discretionary appraisal-related behavior (Cleveland & Murphy, 1991). Frequent feedback should also increase perceptions that one is being treated fairly, and that information is being communicated sincerely and adequately, all of which define interactional justice (Greenberg, 1993).

Hypothesis 5: Frequent feedback will be positively related to perceptions of a) interactional justice, b) procedural justice and c) distributive justice.

Researchers have also found positive relationships between feedback frequency and employee reactions, such as motivation to improve (Buehler, 2006; Gaby, 2004; Kinicki et al., 2004) and system satisfaction (Inderrieden et al., 1988). Mixed results have been found for perceptions of accuracy (Kinicki et al., 2004; Secunda, 1984), composite measures of reactions (Dobbins et al., 1990; Klein & Snell, 1994; Landy et al., 1978), as well as measures of overall fairness (Evans & McShane, 1988; Secunda, 1984).

The relationship between feedback frequency and employee reactions is inconsistent, despite the long held notion that feedback frequency should predict reactions such as fairness and accuracy (Kinicki et al., 2004; Zander & Gyr, 1955), and supporting theory from the due process model of performance appraisal (Folger et al.,

1992). While theory would suggest that knowledge of performance standards and feedback frequency should be similarly related to employee reactions, given that they are assumed to represent the same over-arching construct, i.e. adequate notice, the inconsistent relationships between feedback frequency and employee reactions suggest that feedback frequency may be operating differently than knowledge of performance standards.

One theoretical explanation for this inconsistency is that reactions to feedback are determined not only by feedback frequency, but feedback sign (Ilgen et al., 1979; Landy et al., 1978; Kinicki et al., 2004; Kluger & DeNisi, 1996). Thus, it seems particularly important theoretically and empirically to simultaneously consider rating favorability when measuring the relationship between feedback frequency and employee reactions, both at the individual study level, and in meta-analysis. Thus, the current study is able to potentially clarify why there are inconsistent results across studies in terms of the feedback frequency-employee reaction relationship.

More specifically, the relationship between feedback frequency and employee reactions may be non-significant, or negative perhaps, when rating favorability is low because ratees may feel that they have received a rating that is not reflective of their true performance or their responsiveness to regular feedback. Thus, employee reactions may in fact be not be positive when feedback is high and when rating favorability is low—or, in other words, less positive as compared to when feedback is low. This potential interactive relationship is consistent with research that suggests communication frequency may increase the expectation of favorable outcomes (Kinicki et al., 2004).

This would suggest that feedback frequency and rating favorability interact such that the relationship between feedback frequency and reactions is positive when rating favorability is high, and non-significant (or perhaps negative) when rating favorability is low. This thesis has not been investigated in the employee reaction literature, which assumes that feedback frequency and sign mutually determine employee reactions—but in an additive, not multiplicative sense. Finding that feedback frequency and sign interact to determine employee reactions would have important implications for performance appraisal theory and practice.

Hypothesis 6: Feedback sign will moderate the relationship between feedback frequency and employee reactions such that the relationship between feedback frequency and reactions will be stronger (weaker) when feedback sign is positive (negative).

5.3 Fair Hearing

The preceding sections reviewed and integrated the employee reaction literature as related to the role of adequate notice of performance standards, an important aspect of due process performance appraisal. Another important feature of due process appraisals is a fair hearing, which involves a formal performance review and employee voice (i.e. participation) in the review, as well as rater familiarity with ratee job performance. More studies in the employee reaction domain have focused on employee participation in the appraisal session than any other contextual variable.

Participation in the appraisal. As is described above, Cawley and colleagues (1998) conducted a meta-analysis of the relationship between participation in the appraisal evaluation and employee reactions in 27 field studies. Participation included

instrumental voice, value-expressive voice, self-appraisal, the proportion of time talked by the employee, as well as an "other" category, which included goal setting and variables that represented multiple types of participation. Since several studies besides those included in the previous meta-analysis have measured goal setting in the appraisal interview (totaling 13 studies), this will be treated separately from the "other" category, which represents mixed types of participation.

The main finding of the Cawley et al. (1998) study was that the overall relationship between participation and employee reactions, corrected for unreliability, was strong ($\rho = .61$). This is to be expected since participation is a key antecedent of reactions to decision-making processes and systems (e.g. Locke & Schweiger, 1979). Overall, I expect a similar relationship in the current study between participation and employee reactions.

Cawley and colleagues (1998) provided a relatively thorough review of the literature on different types of employee participation in the appraisal session, including explanations of the various aforementioned constructs. Thus, it would be redundant here to fully describe how measures in the studies that will be included in the present database represent each construct. It is important though to at least describe these constructs, and also to note here how many studies are included in the present database that represent each type of participation.

Goal setting. Goal setting in the appraisal session represents a particular type of participation in the appraisal session, i.e. the opportunity for a ratee to set goals for his or herself for the next appraisal period (Nemeroff & Wexley, 1979). This type of participation differs from voice, i.e. value-expressive and instrumental voice, in the sense

that the ratee is not necessarily voicing his or her opinion about his or her performance, but it does allow the ratee an opportunity to participate in the process and to voice opinions and concerns about future performance and how it will be evaluated.

Goal setting theory would suggest that setting goals should be related to employee reactions such as motivation to improve (e.g. Locke & Latham, 1990) because, for instance, performance standards are clearer to the ratee. Goal setting should also be related to reactions such as appraisal satisfaction and fairness because of the opportunity for increased participation in the process; indeed, Cawley et al. (1998) found a positive relationship between the "other" category of participation, which included goal setting, and employee reactions ($\rho = .70$.). Goal setting is important to study because the relationship between goal setting and employee performance (i.e. behavioral change) has also been documented for some time (e.g. Kay, Meyer & French, 1965). Cawley and colleagues (1998) identified five studies that measured "other" types of participation, including goal setting. The current review identified thirteen studies that specifically included a measure of goal setting.

Self-appraisal. Self-appraisal is the opportunity for an employee to rate his or her own performance, which is intended to increase discussion in the appraisal session, and increase a ratee's voice as related to describing his or her performance. This construct is related to the fair hearing dimension of performance appraisal (Folger et al., 1992) in that it increases the extent to which the ratee is able to present evidence on his or her behalf. Indeed, scholars have argued that self-appraisal should increase participation in the appraisal session (Burke, Weitzel, & Weir, 1978; Farh, Werbel, & Bedeian, 1988), which

should lead to more positive reactions to the appraisal process (Burke et al., 1978; Farh et al., 1988).

Cawley and colleagues (1998) found that the relationship between self-appraisal and overall reactions was small ($p = .25$), but this estimate was based on only three studies, which ranged in magnitude from r = .06 to r = .31 (pgs. 632-633). Indeed, scholars have previously noted the inconsistent relationship between self-appraisal and employee reactions (e.g. Korsgaard et al., 1998). The current literature review identified five additional studies that measured self-appraisal and one or more employee reactions, which will allow for a more robust test of this relationship.

One reason for this variability may be due to the interaction that occurs during the PA session. For instance, if self-appraisals are related to increased rater-ratee disagreement about ratee performance or ratings, self-appraisals may not be related to positive reactions, or may even be negatively related to reactions. For instance, Korsgaard, Roberson, & Rymph (1998) found ratees who were trained to self-appraise *and* to be assertive during the appraisal were more satisfied with the appraisal and were more trusting of their managers as compared to ratees who only self-appraised. An additional, and just as relevant, explanation for this inconsistency is that self-appraisal may be positively related to employee reactions only when it is coupled with decision influence. For instance, Basset and Meyer (1968) found that self-appraisals were positively related to reactions (when self-appraisals and not supervisor appraisals were the basis of the PA discussion), yet these same results were not found when formal self-appraisals were used alongside supervisor ratings (Robserson et al., 1993). Indeerieden and colleagues (2004) actually found that self-appraisal was negatively related to

perceptions of rating fairness, i.e. distributive justice, which could be due to the fact that self-appraisals were not allowed to influence supervisor ratings in this study. DeGregorio, M., & Fisher, C.D. (1988) similarly found that when self-appraisals were used in the performance rating decision process, this resulted in higher perceptions of accuracy and satisfaction than a top-down appraisal, but simply self-appraising (without decision influence) did not.

The existing evidence of the relationship between self-appraisal and employee reactions is mixed, which may be due to the potential moderating role of decision influence and rater-ratee agreement. This is an important area for future research. These propositions can not be tested in the current study, however, since too few studies simultaneously measured both self-appraisal and decision influence or rater-ratee agreement. I expect to find a relationship between self-appraisal and employee reactions that is similar in magnitude to that found by Cawley and colleauges (1998).

Time talked. The proportion of time talked reflects the amount of time talked by the ratee in relation to the amount of time talked by the rater. Cawley and colleagues (1998) noted that the proportion of time talked is an aspect of participation in the appraisal setting, but scholars have established that it is distinct from value-expressive voice (e.g. Greller, 1975). As applied to the current study, proportion of time talked is related to fair hearing since it reflects that the ratee had an opportunity to explain his or her side views of his or her performance. Cawley and colleagues (1998) identified five studies that measured the proportion of time talked by the ratee. The current literature review did not identify any additional studies that measured the proportion of time talked.

As such, this relationship will not be re-analyzed, but effect sizes will be included on the overall participation-reaction relationship, as they were in the Cawley et al. (1998) study.

Participation-other. Cawley et al. (1998) noted that some studies confounded different types of participation in the same measure. The current review identified a total of five such studies, three of which were not included as measures of "other" participation in the previous meta-analysis. As such, this relationship will be meta-analyzed, with the expectation that the mean effect size will be similar to the one previously reported.

Instrumental and value-expressive participation. Another key finding of the Cawley et al. (1998) meta-analysis was that value-expressive voice was more strongly related to reaction criteria than was instrumental voice. The majority of the research on participation in the appraisal has focused on value-expressive and instrumental voice, perhaps because of their obvious overlap with procedural justice theory. The former measures the extent to which an employee has opportunity to express his or her feelings in the appraisal, and the latter measures the extent to which an employee has opportunity to influence the decision outcome (e.g. Korsgaard & Roberson, 1995). These results suggest that simply being able express oneself during an appraisal is related to positive employee reactions, and that decision control is not necessary to produce favorable reactions, which is consistent with procedural justice theory (Lind & Tyler, 1988), as the authors noted.

Revisiting the Cawley, Keeping, & Levy (1998) meta-analysis. Cawley et al. (1998) also noted that the differential relationships between value-expressive voice, instrumental voice and employee reactions were tentative given the relatively small

number of studies in their review, and that this relationship should be re-tested meta-analytically in the future. Given the important theoretical and practical implications of their review, the robustness of this relationship will be meta-analyzed again by including 15 additional effect sizes for value-expressive participation, and 9 additional effect sizes for instrumental participation.

Suh (1992) tested whether or not voice simply for voice's sake was related to increased perceptions of procedural justice, i.e. as compared to a no voice condition, in a performance appraisal context. While the instrumental voice condition resulted in higher procedural justice perceptions than considered voice (i.e. value-expressive voice that was acknowledged), and while there was a marginal effect for considered voice as compared to non-considered voice, non-considered voice (voice simply for the sake of voice) was not related to procedural justice, i.e. as compared to being unable to express voice. Thus, the author concluded that the theoretical assumption of the process control perspective of voice was unsupported, whereas the decision control perspective was supported (Lindy & Tyler, 1988).

A study by Bonness and Macan (2006) also provides evidence that value-expressive voice may not be more strongly related to employee reactions than instrumental voice. The authors found that when appraisals were used in the appraisal session, as compared to when employees were given a chance to self-appraise but the self-appraisal was not used, employees reported more positive attitudes to their appraisal. The authors, therefore, suggest their results indicate instrumental voice was more important to ratees than was value-expressive voice, i.e. the opportunity to self-appraise without influence.

There is reason, therefore, to doubt the finding by Cawley et al. (1998) that voice alone, i.e. without decision influence, is more strongly related to employee reactions than is instrumental voice. Cawley and colleagues (1998) did not include appraisal-related justice perceptions in their study. Voice in and of itself may be more strongly related to more general reactions, such as satisfaction, than to evaluations of specific aspects of appraisal fairness.

Given the tentative nature of their finding, however, the following paragraphs explain how the relationship between participation and reactions will be meta-analyzed, and the conceptual and analytical differences between the Cawley et al. (1998) study and the present study. As will be described, there is also empirical reason to doubt their finding. The present study accordingly seeks to determine more conclusively a) if there is a significant difference between instrumental and value-expressive participation as related to employee reactions, and b) if instrumental and value-expressive voice contribute unique variance to employee reactions, as would be expected based on procedural justice theory (Lind & Tyler, 1988).

While Cawley and colleagues (1998) compared corrected effect sizes between instrumental and value-expressive participation, effect sizes for each type of participation were generally from different studies. Even though meta-analytic effect sizes were corrected for error and unreliability, this involves a comparison of effect sizes not only according to type of participation, but across studies with different samples, and methodologies. A more direct comparison – ruling out study-level or idiosyncratic effects – would be to compare relationships between each type of participation and employee reactions *within* studies, and then meta-analyze the differences in effect size (if

any) between value-expressive and instrumental participation across studies. In this way, one can more effectively answer the question: Is value-expressive voice more strongly related to employee reactions? Given the additional number of effect sizes documented in the literature review of the employee reaction literature, this type of analysis will be conducted as to determine if there is indeed a significant difference between value-expressive and instrumental voice as related to employee reactions. Based on the existing literature, I predict that:

Hypothesis 7: Value-expressive voice will be more strongly related to employee reactions than instrumental voice.

An additional limitation of the Cawley et al. (1998) meta-analysis was that they did not investigate the role of outcome favorability as related to employee reactions. One explanation as to why value-expressive voice was more strongly related to employee reactions than was instrumental voice is that outcome (i.e. rating) favorability was already high in the studies analyzed, thus minimizing the need for decision influence. This is concerning since scholars such as Ilgen, Fisher, and Taylor (1979) have consistently noted that the perceived favorability of one's performance rating is a key determinant of reactions to a performance appraisal.

In support of this, Klein and Snell (1994) noted that the relationship between participation and employee reactions is inconsistent across studies, and suggested that contextual aspects of the appraisal should moderate the participation-reaction relationship. The authors found that performance ratings moderated relationships between participation and reactions such that the relationship between participation and employee reactions is stronger (weaker) favorability was low (high). This is consistent with existing

research on organizational justice, which has documented an interactive relationship between procedural fairness and outcome favorability, such that they act as substitutes (Brockner & Wiesenfeld, 1996).

Extending this finding as applied to performance appraisal, it may be that value-expressive participation is related to reactions, but only when one's performance rating is high; when one's performance rating is low, instrumental voice may become more important. For instance, while the review by Brockner and Wiesenfeld (1996) indicates that outcome favorability is less strongly related to a variety of dependent variables when procedural justice is high, and vice versa, this interactive effect is inconsistent in that some studies have only found main effects for each type of justice (Lind, 2001).

While heretofore unacknowledged, this may be due, at least in part, to the way in which procedural justice is operationalized, or the type of procedural justice that is evident in the appraisal session. That is, decision control may be more important when outcome favorability is low, since it involves the ability to actively influence the outcome of a decision, whereas value-expressive voice may not mitigate the effect of an unfavorable outcome, since this aspect of procedural justice is relatively unrelated to decision influence (Lind & Tyler, 1988). Thus, it is important to not only determine if outcome favorability and procedural justice interact, but also to establish *when* this is the case.

Indeed, this proposition is supported by Brockner's (2002) theoretical review, which argues that the judgment of responsibility, i.e. an attribution that the decision maker is responsible for an unfavorable outcome, determines the interactive relationship between outcome favorability and procedural justice. The author posited, based on

referent cognitions theory, that blame for an unfavorable outcome will be attributed to the decision maker to the extent that the decision maker is perceived to be responsible for the decision.

Extending this argument, in a situation where decision control is low, blame should be attributed to the decision maker, as compared to a situation where decision control is high, where blame is less likely to be directed only at the decision maker. That is, since value-expressive voice does not necessarily imply that one's voice had an impact on a decision, it seems less likely that attribution of blame would be placed on the decision maker. Thus, the *type* of procedural justice, i.e. participation, involved in a performance appraisal may serve as a boundary condition for the interactive relationship between outcome favorability and procedural justice. If this is indeed the case, some of the basic theoretical assumptions regarding procedural justice, and the interactive relationship between procedural justice and outcome favorability, would need to be revisited.

Hypothesis 8a: The relationship between value-expressive voice and employee reactions will be stronger (weaker) when outcome favorability is high (low).

Hypothesis 8b: The relationship between instrumental voice and employee reactions will be stronger (weaker) when outcome favorability is low (high).

Supervisor job-related knowledge. While more research in the employee reaction literature has focused on participation in the appraisal than any other contextual antecedent of employee reactions, an additional dimension of a fair hearing is supervisor knowledge of employee job performance. This can encompass both observation of ratee performance and knowledge of the ratee's job—both of which should enable the

supervisor or rater to provide a more valid assessment of performance. Twelve studies (fourteen unique samples) measured supervisor job-related knowledge, or the extent to which a supervisor is knowledgeable about the ratee's job functions and performance.

Those studies that investigated how rater job-related knowledge is related to employee reactions measured ratee's perceptions that his or her rater is knowledgeable about the ratees job duties and job performance. Operationalizations varied, but all reflect the same construct. For instance, Evans and McShane measured appraiser's knowledge using five items, based on previous research, such as "my appraiser has an excellent personal knowledge of my performance level in my current position" and "my appraiser has a good understanding of the skills required to perform my job" (pg. 183). Landy et al. (1978) used a single item, "supervisor's knowledge of performance", using a Likert-type scale. Buehler (2006) included an item which measured rater knowledge of ratee job performance. Folger and Konovsky (1989) asked participants if their supervisor "Became thoroughly familiar with your performance" (pg. 120) using a Likert-type response format. Giles et al. (1997) measured supervisor observation using six items such as "My supervisor has adequately observed my performance during the past year" (pg. 498). Inderrieden et al. (2004) measured opportunity for supervisor to observe work using three items, such as "my supervisor seldom sees my work" (pg. 470). Jawahar (2006) measured what the author reported to be supervisor satisfaction, but actually measured the extent to which one's rater "knows how well I am doing my job", using the scale developed by Russell and Goode (1988), who also measured employee reaction as related to this construct. Kinicki et al. (2004) measured supervisor job knowledge and observation using the source credibility scale developed by Vandaveer (1982). Lee and Akhtar (1996)

measured supervisor knowledge of subordinate's job using the item "My supervisor is knowledgeable about the kind of work I am doing" (pg. 883). Thurston (2001) included a scale called assigning raters, which included five items such as "My organization makes sure that I am assigned a rater who understands that requirements and constraints of my work" (pg. 50).

While a fair hearing is theoretically related to procedural justice (Folger et al., 1992), research in the employee reaction literature has instead measured and found positive relationships between supervisor job knowledge and distributive justice (Buehler, 2006; Folger & Konovsky, 1989; Thurston, 2001) as well as perceptions of overall appraisal fairness (Evans & McShane, 1988, 2 samples; Giles, Findley, & Field, 1997; Secunda, M.D. 1984, 2 samples). Researchers have also found positive relationships between supervisor job knowledge and other employee reactions, such as motivation to improve (Kinicki, Prussia, Wu,& Mckee-Ryan, 2004; Lee, & Akhtar, 1996) and composite measures of reactions (Landy, Barnes, & Murphy, 1978; Lee, Akhtar, 1996).

In fact, this makes sense given that the perception that one's rater is familiar with one's job and work performance should be related to the perception that one's rater is able to assign a valid and fair performance rating, i.e. should increase perceptions of outcome fairness (Greenberg, 1987; 1990). Theory would also suggest that perceptions of outcome fairness should predict reactions to the performance appraisal system (Greenberg, 1987). I, therefore, predict that:

Hypothesis 9: Distributive justice will partially mediate the relationship between supervisor job-related knowledge and employee reactions.

The preceding section developed rationale as to why employee participation in performance appraisal and supervisor job-related knowledge are related to the concept of fair hearing, which is an important aspect of due process performance appraisal. Theory related to organizational justice was used and critically examined in order to develop novel and potentially revolutionary hypotheses about the relationships between employee reactions and value-expressive and instrumental voice. Organizational justice theory was also used to develop hypotheses about the mediating role of justice perceptions in the relationships between employee reactions and participation and supervisor job-related knowledge.

The following section will further organize the existing literature on employee reactions by explaining how certain variables in the literature directly reflect the judgment based on evidence principle of due process performance appraisal (Folger et al., 1992). Further, organizational justice theory will be used to develop hypotheses about the relationship between judgment based on evidence and employee reactions.

5.4 Judgment Based on Evidence

The judgment based on evidence dimension of due process performance appraisal (Folger et al., 1992) holds that performance standards should be consistently applied and free from bias, and that ratees have an opportunity to appeal the performance appraisal decision. The judgment based on evidence dimension of due process performance appraisal can be fulfilled, at least in part, through supervisor neutrality or lack of bias, the use of valid appraisal instruments, judging performance based on job-relevant factors, and an appeals process. As will be explained in more detail below, research in the employee reaction literature has investigated how each of these factors is related to

employee reactions. While all of these appraisal features represent an aspect of judgment based on evidence, they also represent substantively different constructs, and may be related to reactions in different ways. As such, hypotheses will be developed as related to each type or aspect of judgment based on evidence.

Supervisor neutrality and lack of bias. Research in the employee reaction literature has investigated how supervisor neutrality or lack of bias are related to employee reactions. While these are slightly different concepts, they are all related to the extent to the perception that one's supervisor is unbiased and is able to provide a valid performance rating. Eight studies measured supervisor neutrality or lack of bias.

Research on supervisor lack of bias has found positive relationships with perceptions of distributive justice (Buehler, 2006;Tang, & Sarsfield-Baldwin, 1996; Thurston, 2001) and interactional justice (Buehler, 2006; Gaby, 2004; Thurston, 2001). This research has also found positive relationships between supervisor lack of bias and employee reactions, including perceptions of fairness (Kavanagh, Benson, Brown, 2008; Tang, & Sarsfield-Baldwin, 1996), motivation to improve (Gaby, 2004; Kinicki, Prussia, Wu, & Mckee-Ryan, 2004), and composite reactions (Kleiman, Biderman, & Faley, 1987; Tang, & Sarsfield-Baldwin, 1996).

If one perceives that one's rater is credible, neutral or lacking bias, this should increase the likelihood that one has been treated fairly interpersonally in the appraisal because bias is less likely to be introduced into the session. As such, perceptions of interactional justice should increase (Greenberg, 1983). This being the case, one's perception that one's rating is fair should also increase, thus increasing perceptions of

outcome fairness (Greenberg, 1987). Perceptions of justice should be related to more favorable reactions to the appraisal. I, therefore, predict that:

Hypothesis 10: Perceptions of distributive and interactional justice will partially mediate the relationship between supervisor lack of bias and employee reactions.

Valid rating instruments. While the employee reaction literature has not investigated the relationship between the use of valid rating instruments and employee reactions per se, that is in the traditional psychometric sense, the research on rating format has been integrated with the employee reaction literature. Scholars have proposed that behavioral observation scales should be perceived as fairer by employees than other formats, i.e. graphic rating scales, because they require raters to observe and document employee work behavior (Tharenou, 1995). Indeed, research indicates that BOS scales (as compared to graphic rating scales) are related to higher levels of performance appraisal satisfaction and subsequent job performance (Tziner, Kopelman, & Joanis, 1997; Tziner, Kopelman, & Livneh, 1993). Thus, as opposed to rating formats where employees are assigned a numeric rating based on some adjective (graphic rating) or a pre-determined behavioral prototype (behaviorally-anchored rating scale, BARS), behavioral observation scales emphasize actual observations of work behavior. Behavior observation scales are, therefore, expected to be positively related to employee reactions since they utilize more "valid", i.e. behavior-based, information than other formats. Only three studies were located that measured relationships between rating format and employee reactions. Based on the positive results in these studies, I predict that:

Hypothesis 11: Rating format (i.e. BOS scales as compared to other graphic and BARS scales) will be positively related to employee reactions.

Job-relevant factors. To the extent that a rater judges a ratee on what the ratee perceives to be job-relevant factors, reactions to the appraisal should be more positive (Folger et al., 1992). Nine studies in were located that measured relationships between the ratee's perception that his or her performance was judged based on job-relevant factors and employee reactions. For instance, Burke et al. (1978) asked respondents "How much of a balance would you say there was between your job performance and your personality and mannerisms in the last evaluation of your performance" (pg. 908). Dipboye and DePontbriand (1981) asked ratees the extent to which there was "Relevance of factors on which you were evaluated" (pg. 250). Nathan et al. (1991) developed a "criteria scale" which measured "the extent to which the actual evaluation was based on results achieved, job-related behaviors, skills and abilities and predetermined goals" (pg. 358).

This research has found that the perception that performance was judged based on job-relevant factors is related to perceptions of interactional justice (Buehler, 2006; Burke et al., 1978; Gaby, 2004) and procedural justice (Buehler, 2006; Cobb et al., 1998; Erdogan et al., 2001). These findings suggest that judging performance based on job-relevant factors increases the perception that one has been treated fairly interpersonally, and that the performance appraisal process was fair, which is consistent with theory (Folger et al., 1992; Greenberg, 1987; 1993). That is, when performance is judged based on relevant, objective factors as opposed to more subjective factors which are relatively unrelated to job duties or performance, the perception that the appraisal process is fair should increase (Greenberg, 1987). Since it is often up to the rater to determine what types of factors he or she will use to rate his or her subordinates' performance,

perceptions of interactional justice should also increase because ratees should feel that their supervisor has treated them fairly.

Research has also found that judging performance based on job-relevant factors is related to employee reactions, particularly appraisal satisfaction (Burke, Weitzel, &Weir, 1978, Dipboye & de Pontbriand, 1981, Gaby, 2004; Igoumenopolous, 2001; Mount, 1984 ; Nathan, Mohrman, & Milliman, 1991). Since judgment based on relevant standards increases the perception that one has been treated fairly, and that the appraisal process was fair, one's reactions to the process should be more positive.

Hypothesis 12: Perceptions of interactional and procedural justice will partially mediate the relationship between judgment based on job-relevant factors and employee reactions.

Appeals process. When decisions related to the performance appraisal, e.g. one's performance rating, can be appealed, ratees should react more favorably to the appraisal. Procedural justice theory is particularly relevant here, which would suggest that having recourse about the appraisal decision should increase the perception that the process is fair and just, which should be related to positive employee reactions (e.g. Folger et al., 1992; Greenberg, 1987). Only five studies were found which measured relationships between whether or not an appeals process is available to ratees, and employee perceptions of fairness and appraisal reactions, but results have been positive (Buehler, 2006; Cobb, Vest, Hills, 1998; Giles, Findley, & Field, 1997; Thurston, 2001). Based on theory and existing research, I predict that:

Hypothesis 13: The availability of an appeals process will be positively related to employee reactions.

Summary

This chapter organized the extant research on employee reactions using the due process model of performance appraisal. It was demonstrated that variables that represent each aspect of due process have been used in the employee reaction literature, and that organizing these variables according to the due process model facilitated the explication of relationships with fairness perceptions and, ultimately, employee reactions to the appraisal process. Basic tenets of organizational justice theory were utilized to develop hypotheses about relationships between due process contextual aspects of performance appraisal and employee reactions. Organizational justice theory was also extended in the sense that the interactive relationship between procedural justice, i.e. participation in the appraisal, and outcome favorability, i.e. performance ratings, was proposed to be qualified by *type* of participation, i.e. instrumental vs. value-expressive. The following chapter will explain how meta-analysis will be used to test the hypotheses developed above.

CHAPTER 6

METHODS

6.1 Meta-Analytic Method

The effect size metric chosen was the correlation coefficient, given that effect sizes reported in the employee reaction literature are almost invariably reported in this metric. Correlations were first transformed into the Fisher's z for analysis, and were then back-transformed in the correlation metric for presentation of results. Each effect size was weighted by the inverse of its sampling error variance. No other effect size corrections were employed since this can lead to inaccurate conclusions about the population mean and variability (e.g. Deshon, 2002). Random effects models were employed when the effect size was significantly heterogeneous; otherwise, a fixed-effects model was employed (Hedges & Vevea, 1998).

Tests of significance for effect size centrality were conducted using Z-tests (Lipsey & Wilson, 2001). Significance tests for moderation (with continuous moderators) were conducted using procedures developed for meta-analytic regression in SPSS by Lipsey ad Wilson (2001). Procedures for testing effect size centrality, homogeneity and moderation were consistent with convention (i.e. Hedges & Olkin, 1985).

Models of meta-analytic correlation matrices (Viswesvaran & Ones, 1995) were used to test hypotheses involving mediation (Hypotheses 3, 4, 9, 10 and 12). These hypotheses posited that one or more organizational justice variables would mediate the relationship between the antecedent of interest and employee reactions. Meta-analytic correlations between justice variables and employee reactions from Table 3 were used as

input data (all correlations were significant), as were meta-analytic correlations between relevant antecedents, justice variables and employee reactions from Table 4[9]. Also, meta-analytic correlations between each type of justice variable were computed for the correlation matrices (See Table 6).

All latent factors were treated as single item indicators, and models were tested using maximum likelihood estimation, with the harmonic mean of the samples sizes, as is consistent with published research in applied psychology (e.g. Chen, Casper & Cortina, 2001; Ford et al., 2007). A variety of fit indicates are reported for each model in order to evaluate model fit, as is consistent with recommendations from the structural equation modeling literature (Hu & Bentler, 1999; Joreskog & Sorbom, 1993).

Consistent with Baron and Kenny (1986), full mediation was established if and when a fully mediated model fit the data well and, when adding a direct path from the antecedent to employee reactions, the path was non-significant. Partial mediation was established when the standardized path from the antecedent to employee reactions was smaller than its respective meta-analytic correlation (i.e. from Tables 3 and 4). That is, mediation is established when 1) the independent variable is correlated with the outcome variable, 2) the independent variable is correlated with the mediator, 3) the mediator is correlated with the outcome variable, and 4) when controlling for the relationship between the mediator and the outcome variable, the relationship between the independent variable and the outcome variable is non-significant. Partial mediation is established when the path from the independent variable to the outcome variable "is reduced in

[9] For correlations used as input data for path-analytic models, employee reactions did not include any measure of organizational justice, since this would naturally confound tests of mediation (i.e. since justice variables were posited as mediators).

absolute size, but is still different from zero when the mediator is controlled" (http://davidakenny.net/cm/mediate.htm) .

6.2 Literature Search and Inclusion Criteria

Literature review. Relevant databases, i.e. PsycInfo, Business Source Elite, Jstor, Proquest, Sage Journals Online, and Social Science Abstracts were searched using sets of keywords such as "employee reactions and performance appraisal", "organizational justice and performance appraisal". While employee reactions to performance appraisal is a topic of growing but relatively recent interest, no specific starting date was defined, in order to ensure that all potentially relevant studies were included. Reference lists of major reviews related to contextual or qualitative aspects of performance appraisal (i.e. Cawley, Keeping & Levy, 1998; Erdogan, 2002; Levy & Williams, 2004) were searched for unidentified articles. In order to minimize a file drawer effect, theses and dissertations were identified using the Dissertation Abstracts International database, and were included in this study. The online database for the Society of Industrial-Organizational Psychology conference presentations was also searched, and relevant papers were requested from authors. The online database for the Academy of Management publications, e.g. Academy of Management Journal, conference proceedings and presentations was also searched to identify relevant published and unpublished manuscripts. Unpublished manuscripts were also solicited from the Organizational Behavior and Human Resource Management listservs of the Academy of Management.

Inclusion criteria. First, given the central interest in employee reactions to the current model, only studies that measured a relationship between one or more employee reaction criteria and one or more contextual variables were included. Second, since the

focus of the present study is on performance appraisal, each study had to reflect an actual performance review session, as opposed to simply giving feedback related to a specific task, for instance. While laboratory studies were included in the database, participants must have participated in an actual performance review process (e.g. Kacmar, Wayne, & Wright, 1996). Studies that involved a participant reading a fictitious performance evaluation of a job incumbent (e.g. Holbrook, 1999), for example, were excluded. Both laboratory and field studies were included in the database since there is no a priori reason to expect differences across study type in substantive relationships between appraisal context and reactions (Levy, Cawley, & Foti, 1998). Indeed, researchers have tested the same relationships between appraisal context and subsequent reactions in laboratory and field settings, and have found convergent results (c.f. Levy, Cawley, & Foti, 1998). That said, the number of lab studies in the current database is small relative to the number of field studies. Finally, the study must have reported an effect size, i.e. *r* or d, or information that was sufficient to calculate an effect size to be included. Based on these inclusion criteria, a total of 83 studies with 89 unique samples were included in the database. Whenever a study reported multiple correlations between a contextual antecedent(s) and an employee reaction(s), non-independent effect sizes were transformed into a correlation of composite variables[10] (Hunter & Schmidt, 1990).

Study Coding

Of the 89 independent samples included in this study, 48 were independently coded by a second coder (a Ph.D. student in human resource management). Levels of agreement between coders are reported below for each set of variables.

[10] This procedure was used whenever possible. When insufficient information was available, i.e. when correlations between relevant variables were not reported, non-independent effect sizes were averaged arithmetically.

Antecedent variables. The antecedent variables coded in this study were treated as antecedents if they were measured before or currently with the measurement of the outcome (reaction) variables[11].

Social contextual variables were coded as to whether they measured relationship quality, supervisor trust, supervisor support or supervisor satisfaction. Relationship quality was measured using a leader-member exchange variable (e.g. Graen, Novak & Sommerkamp, 1982) in six studies; in another study it was measured using a semantic differential scale; and in one additional study, it was measured using a scale developed by the authors. Supervisor trust was measured using a validated measure of supervisor trust (e.g. Roberts & O'Reilly, 1974) in all but two studies, where items were developed for those particular studies. While there is an extensive literature on supervisor support, which includes validated scales (e.g. Caplan et al., 1975), the studies that measured supervisor support did so using self-developed items. Some studies that measured supervisor satisfaction did so using validated scales (e.g. Smith, Kendall & Hulin, 1969), whereas others developed items for the purposes of their study (e.g. Russell & Goode, 1988), which were then used by other researchers in the performance appraisal context. Agreement between raters ranged from 83% to 100% for social contextual variables.

Due process variables were coded according to which aspect of due process was being measured. In terms of adequate notice, several studies measured perceived system knowledge, a scale developed by Williams and Levy (1992); several others used self-developed items. Most of the studies that measured feedback frequency did so using original items, which typically asked employees in a straightforward manner to rate the

[11] Some studies measured rating favorability, for example, after the appraisal session.

extent to which they felt they received frequent feedback. Agreement ranged from 70% to 82%.

For fair hearing, the employee participation variables were coded consistent with Cawley and colleagues (1998). Whenever a variable included an instrumental component, it was coded as instrumental voice. Variables that only measured voice for the sake of voice were coded as value-expressive. No additional studies were located which measured proportion of time talked, so this construct was not included in this study. Cawley et al. (1998) coded studies that "did not fit neatly into these categories" as other, which was also done in this study, except goal setting was included as distinct from this category since several studies that were not included in the previous meta-analysis specifically measured goal setting. Also consistent with Cawley et al. (1998), if a study measure self-ratings, this was coded as self-appraisal. Supervisor job knowledge typically was measured with original items developed by authors for the purposes of their study, and measured the extent to which one's supervisor was familiar with the employee's performance and/or had opportunity to observe their performance. Agreement ranged from 75% to 100%.

For judgment based on evidence, studies that measured the extent to which a decision was appealable were coded for an appeals process. Studies that measured the extent to which one's evaluation criteria were based on objective and job-relevant standards were coded for job-relevant factors. Studies that measured the extent to which performance standards were consistently applied or the extent to which one's supervisor was perceived as neutral or lacking bias were coded for supervisor lack of bias. Studies that compared reactions to a rating instrument using a behavioral observation scale

(compared to a graphic rating scale) were coded for valid rating instrument. Agreement ranged from 80% to 100%.

Given the interest in rating favorability in this study, studies that measured the relationship between reactions and the favorability of the employee's performance rating (in terms of perceived favorability, self-reported performance rating or supervisor reported performance rating) were coded for rating favorability. Agreement for this variable was 93%.

Employee reactions. Employee reaction variables, i.e. accuracy, fairness, (session and system) satisfaction, utility and composite variables were coded consistent with Cawley and colleagues (1998). When studies measured performance appraisal distrbutive, interactional (interpersonal or informational), or procedural justice, studies were coded for the type of justice construct measured (consistent with Colquitt et al., 2001 and Keeping & Levy, 2000). Agreement ranged from 75% to 100%.

CHAPTER 7

RESULTS

7.1 Meta-Analytic Correlations

Meta-analytic correlations between each of the independent variables in this study and employee reactions[12] are reported in Table 1. The correlations under fair hearing that represent employee participation in the appraisal are noticeably similar in magnitude to those reported by Cawley and colleagues (1998), although with larger numbers of independent effect sizes. When comparing meta-analytic correlations (*Mr*) between the Cawley study and this study (in parentheses), the relationships between overall employee reactions and various forms of participation are remarkably similar: instrumental voice *Mr* =.42, *k* =16 (*Mr* =.40, *k* =27), composite measures of participation *Mr* =.47, *k* =5 (*Mr* =.53, *k* =9), self-appraisal *Mr* =.22, *k* =3 (*Mr* =.23, *k* =8), and value-expressive voice *Mr* =.47, *k* =18 (*Mr* =.52, *k* =35). It is important to note here that, in the current study, research reports were also coded for goal setting in the appraisal (another form of participation), which was moderately correlated with employee reactions (*Mr* =.49, *k* =15). Another aspect of fair hearing, supervisor knowledge of job performance, was also correlated with overall reactions (*Mr* =.54, *k* =12).

[12] For these results, employee reactions are the aforementioned reactions (Chapter 2), i.e. accuracy fairness, satisfaction, utility, composite (other) measures, including measures of performance appraisal distributive, interactional and procedural justice.

Table 1
Meta-analytic Results for Employee Reactions to Performance Appraisal

	N	*K*	*SDr*	*Mr*	Lower 95%CI	Upper 95%CI	Q
Social Context							
Relationship Quality	1,356	8	.14	.60	.55	.62	27.65*
Supervisor Satisfaction	2,235	11	.28	.60	.47	.70	169.40*
Supervisor Support	633	3	.11	.58	.47	.68	7.41*
Supervisor Trust	1,103	8	.24	.60	.48	.71	63.21*
Adequate Notice							
Frequent Feedback	3,899	15	.25	.38	.26	.49	234.60*
Knowledge of Performance Standards	4,661	18	.18	.50	.42	.58	154.10*
Fair Hearing							
Goal Setting	3,992	15	.21	.49	.40	.57	168.85*
Instrumental Voice	5,104	27	.16	.40	.35	.46	126.51*
Other (composite participation)	1,397	9	.21	.53	.40	.63	58.34*
Self-appraisal	1,312	8	.17	.23	.10	.35	15.06*
Value-expressive Voice	9,528	35	.20	.52	.46	.57	369.03*
Supervisor Knowledge	3,511	12	.28	.54	.41	.65	277.82*
Judgment Based on Evidence							
Appeals Process	966	4	.20	.60	.43	.73	37.37*
Job-Relevant Factors	3,767	11	.26	.51	.38	.62	244.50*
Supervisor Lack of Bias	3,898	8	.18	.55	.42	.65	118.10*
Valid Instrument (BOS vs. Other)	361	3	.05	.23	.13	.33	.96
Rating Favorability and Justice Variables							
Rating Favorability	10,880	36	.17	.39	.33	.44	300.07*
Distributive Justice	2,441	16	.37	.59	.45	.70	328.00*
Interactional Justice	1,664	9	.22	.64	.48	.81	78.38*
Procedural Justice	1,550	12	.13	.73	.69	.76	25.11*

Note. N= Cumulative sample size; k =Cumulative number of effect sizes; *SDr* = weighted standard deviation of observed effect sizes; *Mr* = Population mean correlation.

While the above findings indicate that participation in the appraisal is important, in that participation is correlated with employee reactions, they also indicate that the social context within which the appraisal occurs and other aspects of due process are important (sometimes potentially more important). Each of the correlations between overall reactions and social contextual variables (relationship quality, supervisor satisfaction, supervisor support and supervisor trust) are at or around *Mr* = .60 (Table 1). This is consistent with a primary thesis of the integrative review above (Chapter 4): that social contextual variables should be similarly related to employee reactions.

Meta-analytic correlations for hypothesis tests and input data for path analyses are presented in Table 2.

Table 2

Meta-analytic Results for Employee Reactions to Performance Appraisal: Meta-Analytic Correlations for Hypothesis Tests and Path Analyses

	N	*K*	*SDr*	*Mr*	Lower 95%CI	Upper 95%CI	Q
Social Contextual Variables (Overall) (Hypotheses 1-3)							
Distributive Justice	1,821	12	.22	.51	.37	.65	88.32*
Interactional Justice	1,841	9	.22	.79	.62	.95	88.27*
Procedural Justice	949	7	.11	.63	.57	.70	12.00ns
Employee Reactions	4,042	23	.16	.66	.59	.73	105.09*
Knowledge of Performance Standards (Hypothesis 4)							
Distributive Justice	645	3	.26	.58	.21	.96	42.82*
Procedural Justice	391	5	.16	.50	.34	.67	10.01*
Employee Reactions	4,123	14	.16	.53	.42	.64	98.43*
Frequent Feedback (Hypothesis 5)							
Distributive Justice	827	3	.28	.51	.12	.90	38.07*
Interactional Justice	1,023	3	.15	.69	.44	.94	23.15*
Procedural Justice	433	3	.11	.47	.38	.58	4.69
Supervisor Job Knowledge (Hypothesis 9)							
Distributive Justice	1,162	6	.18	.42	.26	.59	38.68*
Employee Reactions	3,057	10	.23	.53	.37	.69	156.23*
Supervisor Lack of Bias (Hypothesis 10)							
Distributive Justice	565	4	.35	.55	.47	.64	68.04*
Interactional Justice	1,023	3	.11	.92	.85	.98	11.65*
Employee Reactions	3,814	7	.14	.57	.42	.71	72.90*
Job-relevant Factors (Hypothesis 12)							
Procedural Justice	645	3	.21	.64	.31	.98	26.67*
Employee Reactions	3,683	10	.25	.57	.41	.73	219.03*

Note. N= Cumulative sample size; k =Cumulative number of effect sizes; SD_r = weighted standard deviation of observed effect sizes; *Mr* = Population mean correlation; Q = heterogeneity of *Mr*, * = significant at $p < .05$.

While meta-analytic correlations between social contextual variables and each type of justice variable are also large (Table 2), which supports Hypothesis 1, the largest correlation is with interactional justice (*Mr* = .79, *k* =9), which supports Hypothesis 2, and is consistent with organizational justice theory and research (e.g. Colquitt et al., 2001; see Chapter 2).

As was expected based on the review of due process performance appraisal, adequate notice and judgment based on evidence were also related to employee reactions. Both aspects of adequate notice, i.e. frequent feedback (*Mr* = 38, *k* =15) and knowledge of performance standards (*Mr* = .50, k =18), were correlated (moderate to large) with overall reactions. Hypothesis 5 predicted that feedback frequency would also be related to distributive justice (*Mr* = .51, *k* =3), interactional justice (*Mr*.= 69, *k* =3) and procedural justice (*Mr* = .47, k = 3), which was supported. What is interesting here is that frequent feedback is an aspect of due process and, hence, an aspect of procedural fairness, but it is most strongly related to interactional justice—indicating that frequent contact regarding performance between supervisor and subordinate increases perceptions of interpersonal fairness most.

Each of the aspects of judgment based on evidence, i.e. instrument validity (M_r.= 23, *k* =3, which supports Hypothesis 11), an appeals process (*Mr* = .60, *k* =4, which supports Hypothesis 13), judgment based on job-relevant factors (*Mr* = .51, *k* =11), and supervisor lack of bias (*Mr* = 55, *k* =8) were correlated (moderate to large) with overall reactions.

7.2 Tests of Mediation

Meta-analytic correlations between organizational justice variables used as input data for path analyses can be found in Table 3.

Table 3
Meta-Analytic Correlation Matrix for Justice Variables (Used as Input Data for Path Analysis)

	DJ	IJ	PJ
DJ	1		
IJ	.69* *k* =8 N = 1,057	1	
PJ	.92* *k* =8 N = 1,104	.80* *k* =5 N = 630	1

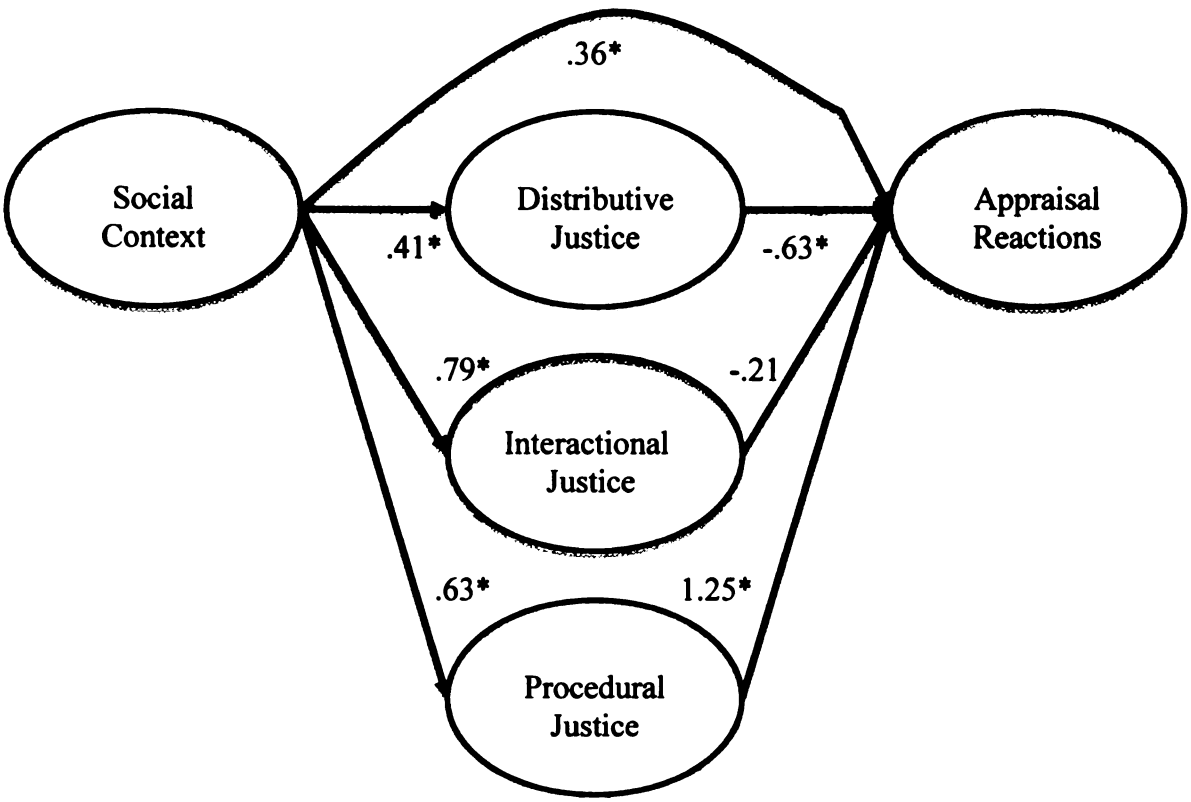
Note. N= Cumulative sample size; k =Cumulative number of effect sizes; M_r = Population mean correlation, * $p < .05$.

Hypothesis 3 predicted that organizational justice variables (distributive, interactional and procedural justice) would partially mediate the relationship between social context variables[13] and employee reactions. As can be seen from Table 4, social context was significantly related to each measure of organizational justice, and to employee reactions. A fully mediated model fit the data reasonably well $\chi^2(1, N = 149) = 14.56$ $p < .01$, GFI = .95, CFI = .98, RMSEA = .34, SRMR = .03 $R^2 = .62$, but the path from interactional justice to employee reactions was non-significant, perhaps because it is so strongly related to the social context. When adding a direct path from social context to employee reactions[14], the path ($\beta = .36$, $p < .05$) was noticeably smaller than the bivariate

[13] Since all of the social context variables are conceptually related (Chpater 4) and were all related to employee reactions at about *Mr* = .60, these were combined into a single antecedent variable.
[14] This is a just-identified model; fit statistics will not be reported.

correlation (i.e. M_r = .66), R^2 = .51; thus, partial mediation was established. See Figure 2 for an illustration of the model with standardized paths.

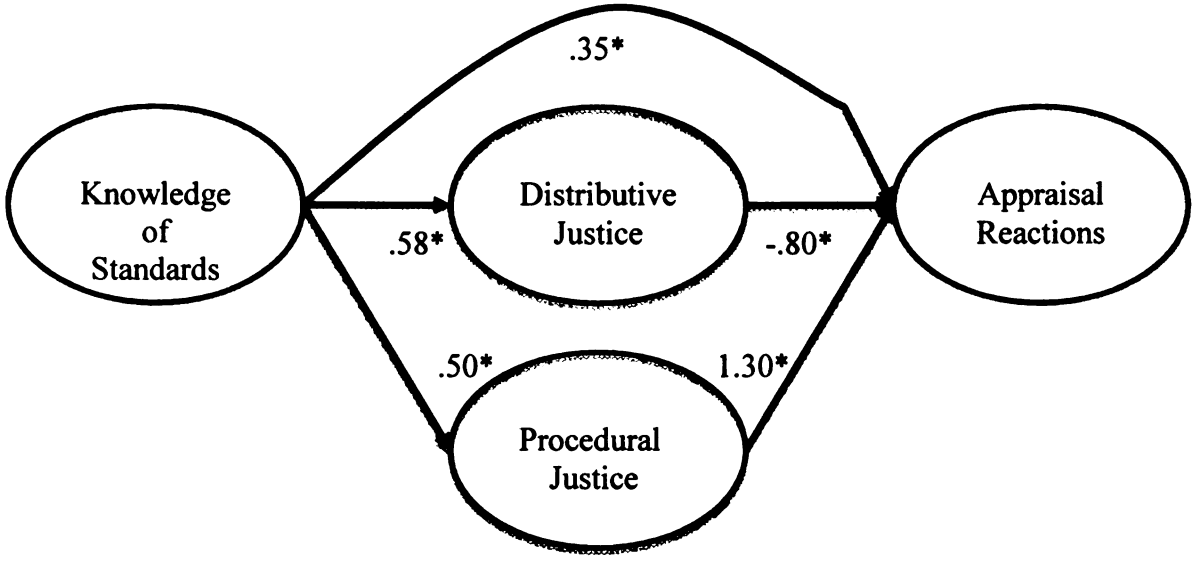
Figure 2
Model of the Relationship Between Social Context, Organizational Justice Variables and Employee Reactions



Hypothesis 4 predicted that organizational justice variables (distributive and and procedural justice) would partially mediate the relationship between knowledge of performance standards and employee reactions. As can be seen from Table 4, knowledge of performance standards was related to distributive and procedural justice, and employee reactions; there were too few (k =2) effect sizes to calculate a mean correlation between knowledge of performance standards and interactional justice. A fully mediated model did not fit the data well $\chi^2(1, N = 149) = 19.95$ $p < .01$, GFI = .91, CFI = .92, RMSEA =

.42, SRMR = .07, R^2 = .58. When a direct path was added from knowledge of performance standards to employee reactions[15], the path (β = .35, p < .05) was noticeably smaller than the bivariate correlation (i.e. M_r = .53), R^2 = .67; thus, partial mediation was established. See Figure 3 for an illustration of the model with standardized paths.

Figure 3
Model of the Relationship Between Knowledge of Performance Standards, Distributive and Procedural Justice and Employee Reactions

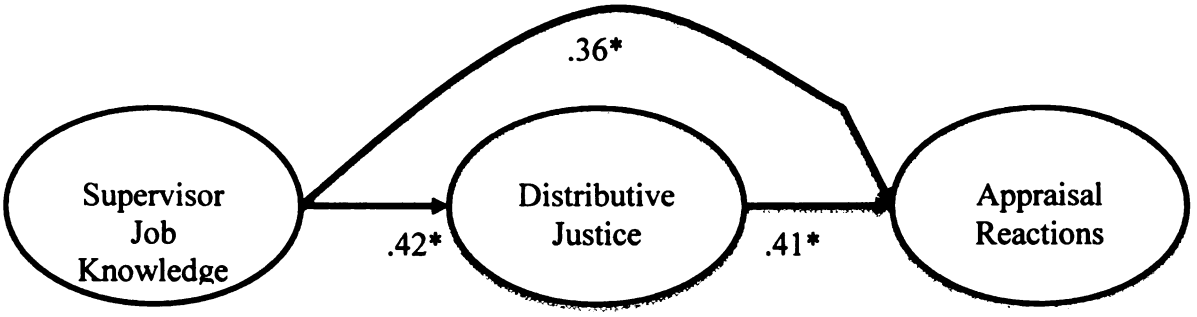


Hypothesis 9 predicted that distributive justice would partially mediate the relationship between supervisor job knowledge and employee reactions. As can be seen from Table 4, supervisor job knowledge was significantly related to both distributive justice and employee reactions. A fully mediated model did not fit the data well χ^2(1, N = 149) 14.56p < .01, GFI = .91, CFI = .79, RMSEA = .38, SRMR = .03, R^2 = .31. The partially-mediated model[16] indicated that the magnitude of the direct effect from supervisor job knowledge to employee reactions (β = .36, p < .05) was smaller than the

[15] This is a just-identified model; fit statistics will not be reported.
[16] This is a just-identified model; fit statistics will not be reported.

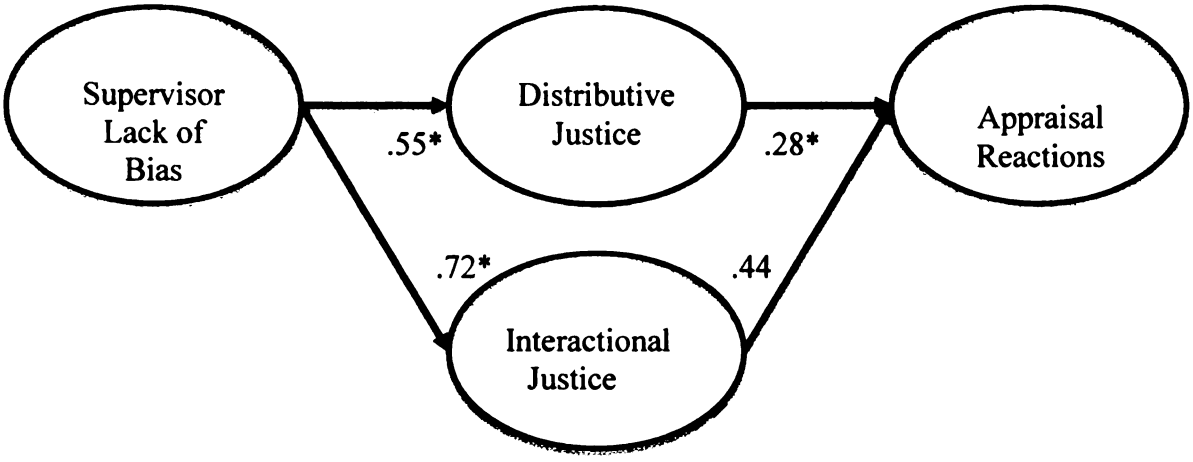
bivariate correlation (i.e. M_r = .53), R^2 = .42; thus, partial mediation was established. See Figure 4 for an illustration of the model with standardized paths.

Figure 4
Model of the Relationship Between Supervisor Job Knowledge, Distributive Justice and Employee Reactions



Hypothesis 10 predicted that distributive justice and interactional justice would partially mediate the relationship between supervisor lack of bias and employee reactions. As can be seen from Table 4, supervisor lack of bias was correlated with each of these variables. A fully mediated model fit the data well χ^2(1, N = 167), .06 p =.81 , GFI = 1.00, CFI = 1.00, RMSEA = .00, SRMR = .002, R^2 = .45. When a direct path was added from supervisor lack of bias to employee reactions, the path was non-significant (β = .23, ns), R^2 = .45. Distributive and interactional justice fully mediated the relationship between supervisor lack of bias and employee reactions. See Figure 5 for an illustration of the model with standardized paths.

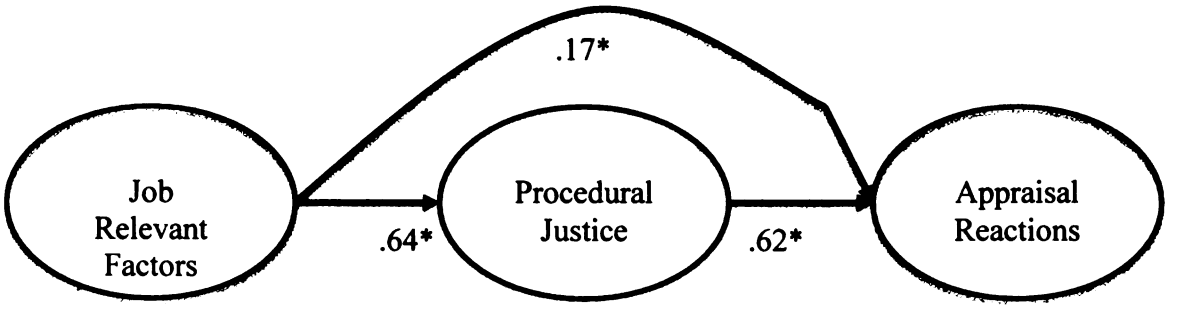
Figure 5
Model of the Relationship Between Supervisor Lack of Bias, Distributive and Interactional Justice and Employee Reactions



Hypothesis 12 predicted that interactional and procedural justice would partially mediate the relationship between job-relevant factors and employee reactions. While there were too few effect sizes to calculate a mean correlation between knowledge of performance standards and interactional justice, the former was correlated with procedural justice and employee reactions (Table 2). A fully mediated model fit the data reasonably well $\chi^2(1, N = 167)$, .5.02 p = .03 , GFI = .98, CFI = .98, RMSEA = .18, SRMR = .04, R^2 = .53. When a direct path was added from knowledge of performance standards to employee reactions[17], the path ($\beta = .36$, $p < .05$) was noticeably smaller than the bivariate correlation (i.e. M_r = .57), R^2 = .55. See Figure 6 for an illustration of the model with standardized paths.

[17] This is a just-identified model; fit statistics will not be reported.

Figure 6
Model of the Relationship Between Job Relevant Factors, Procedural Justice and Employee Reactions



7.3 Tests of Moderation

A modified weighted least squares regression approach was used to test hypotheses involving moderation (Hypotheses 6, 8a, 8b) with continuous moderators (Lipsey & Wilson, 2001, pg. 141). See Table 4 for a summary of the results.

Table 4
Results of Continuous Variable Moderator Analysis in Regression for Employee Reactions

Independent Variable	*Moderator Variable*		B	Se	Lower 95%CI	Upper 95%CI	*Mr*	R^2	Q
Hypothesis 6									
Feedback Frequency	Rating Favorability	11	.56	.18	.21	.91	.44	.05	9.58*
Hypotheses 8a and 8b									
Instrumental Voice	Rating Favorability	14	-.07	.12	-.30	.16	.48	.00	.40
Value-expressive Voice	Rating Favorability	9	.00	.14	-.27	.28	.38	.00	.00

Note. K =number of effect sizes; B = regression coefficient; se = standard error; *Mr* = Population mean correlation; Q = heterogeneity of *Mr*; * = significant at $p < .05$.

Hypothesis 6 predicted that the relationship between feedback frequency and employee reactions would vary according to rating favorability, i.e. that the relationship would become stronger as the relationship between rating favorability and employee reactions increased. The relationship between feedback frequency and employee reactions was significantly heterogeneous (Q = 234.60, p < .05), and varied according to the strength of the relationship between rating favorability and employee reactions (B = .56, R^2 = .05, k =11). Hypothesis 6 was supported.

Hypothesis 8a predicted that the relationship between value-expressive voice and employee reactions would vary according to the relationship between rating favorability and employee reactions. The former relationship was significantly heterogeneous (Q = 369.03, p < .05; Table 5), but did not vary according to the relationship between rating favorability and reactions (B = -.07, ns, k =9). Hypothesis 8b predicted that the relationship between instrumental voice and employee reactions would vary according to the relationship between rating favorability and employee reactions. The former relationship was significantly heterogeneous (Q = 126.51, p < .05), but did not vary according to the relationship between rating favorability and reactions (B = .00, ns, k =14).

CHAPTER 8

DISCUSSION

Performance appraisal is one of the most heavily researched topics in OB/HR, and employee reactions to appraisals are an important outcome of the appraisal process (some scholars and practitioners say the most important outcome), yet there has been a critical science-practice gap in this literature in that research has not produced a coherent understanding of why employees react in different ways to appraisals. Scholarly literature has traditionally focused on the psychometric properties of appraisals, with little consideration of the context within which appraisals occur. In response to criticisms from the scholarly and practitioner communities both, research has shifted its focus to contextual aspects of the appraisal, and to employee reactions to appraisals. The context of performance appraisal and employee reactions to appraisals are highly interrelated, yet there has been no comprehensive review of the employee reaction literature, and no integrative framework exists with propositions about when and why contextual antecedents should be related to employee reactions.

The purpose of this dissertation was to provide such an integrative framework in order to organize the literature on employee reactions to performance appraisal, including mediating mechanisms whereby contextual antecedents are related to reactions, as well as potential moderators of the relationships between contextual antecedents and reactions. Organizational justice theory was used as an over-arching theoretical lens to develop hypotheses about these relationships. A related purpose was to test, using meta-analytic correlations and multivariate analyses with these meta-analytic correlations, some of the

relationships articulated by this framework, as to guide future theory, research and practice related to performance management and appraisal.

Based on social exchange theory and research, the integrative framework proposed that social contextual variables would be similarly related to employee reactions. Researchers have measured relationships between employee reactions and supervisor-subordinate relationship quality, supervisor trust, supervisor and support. An additional proposition, based on organizational justice theory, was that justice perceptions, and especially interactional justice, should explain (mediate) the relationship between social contextual variables and employee reactions.

Researchers have also measured relationships between employee reactions and all aspects of due process outlined in Folger and colleagues' (1992) due process model of performance appraisal, but consider only bivariate relationships. The due process model proposes that employees should react more positively to performance appraisals that are procedurally fair. Integrating this thesis with propositions from organizational justice theory, the integrative framework developed in this dissertation posited that perceptions of justice should explain (mediate) relationships between due process performance appraisal and employee reactions. Differential predictions were developed and tested based on justice theory as to which types of justice perceptions should mediate different elements of due process. An additional proposition developed and tested in this dissertation, also based on justice theory, was that the relationship between rating favorability and reactions should bound (moderate) the relationship between voice and reactions, and between feedback frequency and reactions. The theoretical, managerial and future research implications of the results of these analyses are described below.

8.1 The Social Context of Appraisal

Recent models of the performance appraisal process have proposed that the social context of performance appraisal is an important area of research inquiry (i.e. Erdogan, 2002; Levy & Williams, 2004; Murphy & Cleveland, 1995), if not the key context to study as related to employee reactions (e.g. Russel & Goode, 1988). A number of studies in recent years have tested relationships between social contextual variables and employee reactions (Williams & Levy, 2004). Being conceptually related to rater-ratee relationships (Pichler, Varma, & Petty, 2008), these constructs should be related in similar ways to employee reactions, and should thus be treated as a group of similar antecedents. Leader-member exchange theory has proposed and documented that supervisor trust and support are aspects of exchange quality (Dansereau et al., 1975), and empirical research supports this multidimensional perspective (e.g. Johnson, 2003). This was supported: all of the social contextual variables were related to reactions at or around $M_r = .60$ with employee reactions. These results suggest that future researchers should continue to investigate the role of social context as related to employee reactions, and that the variables included in the extant literature can perhaps be subsumed and considered as aspects of relationship quality.

Theory and research have also indicated that more positive affect (Varma, Pichler, & Srinivas, 2005) and better interpersonal relationships (Varma, Pichler, Srinivas, & Abarillo, 2007) between supervisors and subordinates are related to better interpersonal treatment (interactional justice), increased participation (procedural justice) and better ratings and rewards (distributive justice) (Cleveland and Murphy, 1992; Wayne & Liden, 1995; Wexley & Klimoski 1984). It was, therefore, proposed that social contextual

variables should be positively related to each type of justice (Hypothesis 1), which was also supported.

Organizational justice theory and research have proposed and found that socially-relevant variables (e.g. relationship quality) are most strongly related to interactional justice, as compared to procedural and distributive justice. Results indicated that social contextual variables were most strongly related to interactional justice (Hypothesis 2). Thus, this supports a primary theoretical tenet of justice theory: perceptions of interactional, procedural and distributive justice are independent, and each type of justice should be differentially predicted by content-similar correlates. Consistent with this, although not predicted a priori, frequent feedback was most strongly related to interactional justice perceptions, as well. Frequent feedback from one's supervisor regarding performance probably indicates to the subordinate that s/he is valued (which is consistent with leader-member exchange theory), and it is logical that this increased social interaction would increase perceptions that one is being treated more favorably interpersonally.

An additional proposition from organizational justice theory that was tested is that perceptions of justice help to explain why individuals react the way that they do to organizational systems. Thus, if perceptions of interactional, procedural and distributive justice are positively related to social contextual variables, perhaps because these variables are related to better interpersonal and instrumental treatment, then overall reactions to the appraisal systems should be more favorable *because of* more favorable justice perceptions (Greenberg, 1990). This was supported: perceptions of organizational

justice partially mediated the relationship between the social context of appraisal and reactions to the appraisal.

These results suggest that the way employees are treated interpersonally before, in terms of frequent feedback, and during the appraisal, in terms of dignity and respect, can have an important impact upon the way in which they respond to their appraisal. If a major goal of performance management and appraisal is to provide employees with feedback to remedy performance problems and identify areas for improvement so that performance can be maximized, then this has to be done in an environment where employees feel supported by their supervisor, and where they are treated with dignity and respect. In fact, social contextual variables were more strongly correlated with reactions than was rating favorability and, in most cases, more strongly correlated with employee reactions than were due process variables.

Organizational research has shown, however, that more positive supervisor-subordinate relationships are related to better treatment, and leader-member exchange theory and research have shown that that supervisors treat employees differently based on in- and out-groups. Results outlined above, therefore, suggest that training programs related to performance appraisal for supervisors should address ways for supervisors to attend to not just performance-related information before and during the appraisal, but to the way in which they deliver their feedback, both before and during the appraisal. That is, supervisors should be trained in how to deliver feedback in a way that is courteous and respectful of employees, and that provides adequate explanations regarding how and why performance ratings and appraisal-related decisions were made.

In fact, this may be an effective way to produce more favorable reactions to the appraisal, and thus potentially increase employee performance, even when feedback is negative. Likewise, better interpersonal treatment during the appraisal, i.e. interactional justice, might be a way to prevent employees from responding negatively to the appraisal, which is exceedingly common, even when the system itself does not exemplify a due process model. Future research should test whether or not perceptions of interactional justice interact with perceptions of procedural and distributive justice to predict employee reactions. There is supportive evidence in the broader justice literature, but again, most of the employee reaction literature is limited in the extent to which complex relationships such as these are considered or tested.

The importance of supervisor-subordinate relationships and the various aspects of relationship quality studied in this dissertation to performance appraisals have been highlighted in the recent scholarly literature (Pichler et al., 2008), but are not salient in popular human resource management texts (e.g. Noe, Hollenbeck, Gerhart, & Wright, 2000), government handbooks on performance appraisal (http://www.doi.gov/hrm/guidance/370dm430hndbk.pdf), or discussions in the practitioner literature (e.g. Fox, 2009). For instance, Noe and colleagues (2000) propose that there are nine (9) characteristics of effective performance feedback processes, including characteristics studied herein, such as frequent feedback, employee participation, focusing feedback on objective results or behaviors, setting specific goals, as well as characteristics that are related to interactional justice, namely recognizing performance through praise and minimizing criticism.

What is missing here is that trust in one's supervisor, supportive supervisory behaviors, and a quality supervisor-subordinate relationship *both during and before the appraisal session* seem to be related in important ways to employee reactions to the appraisal. While most of the studies in the current database are cross-sectional, results suggest that not only is interpersonal treatment during the appraisal strongly related to positive appraisal reactions, so too are aspects of relationship quality. This makes sense: To the extent that an employee feels supported by his or her supervisor, i.e. is provided with the resources needed to effectively perform his or her job, then perceptions of fair treatment should increase, thereby leading to more positive appraisal reactions. The implication here is that organizations should focus on developing managers who are socially supportive of their employees, and who are able to develop high-commitment relationships with them.

The practitioner literature is saturated with survey statistics indicating that employees often disagree with their supervisors about performance feedback and are, therefore, dissatisfied with the appraisal process (e.g. Fox, 2009). The results of this dissertation suggest that supervisor-subordinate relationships that are characterized by trust and mutual satisfaction are less likely to result in perceptions of unfairness in the appraisal, and are more likely to lead to positive employee responses to the appraisal. This is an important way in which this study helps to remedy the science practice gap in performance appraisal: employees react differentially to appraisals not just because of their feedback or rating – but because of the way in which they are treated interpersonally by their supervisors both before and during (and probably after) the appraisal.

Of course, employees themselves can take leadership in developing high quality relationships with their supervisors, and seek out feedback from and develop trust with their supervisors (Dansereau et al., 1975). Since social relations with one's supervisor are so strongly related to perceptions of fairness in the appraisal, it seems advantageous for employees to communicate regularly with supervisors, respond actively to feedback from supervisors related to performance, as well as to the delegation of tasks and responsibilities—all of which should increase relationship quality and trust, according to the leader-member exchange literature (e.g. Dansereau et al., 1975). Organizations might consider training programs for employees that develop interpersonal communication competence as related to receiving and responding to performance feedback. In this way, employees themselves can more actively engage in the performance management process through more effective two-way communications with supervisors.

While the practical implications here are relatively straightforward, there is much empirical evidence – and common knowledge – to suggest that supervisors do not always treat employees with respect, perhaps especially when they are delivering critical feedback. Since performance feedback is not always positive, and since supervisors are have a great deal of discretion when it comes to determining the way in which the appraisal session will be lead (Murphy & Cleveland, 1991), it is important to consider how to increase procedural fairness in performance appraisal, which will be considered next.

8.2 Due Process Performance Appraisal

The review above identified a number of studies that measured relationships between due process performance appraisal and employee reactions. That said, almost

none of these studies did so using the due process model of appraisal developed by Folger and colleauges (1992), with a few exceptions (e.g. Taylor et al., 1995). This limits the contribution these studies make to the understanding of due process and employee reactions. As such, studies were organized according to which aspects of due process were measured, and how these aspects were related to reactions, in order to utilize and build upon the due process model of performance appraisal as it relates to appraisal effectiveness. The meta-analytic correlations between due process and employee reactions suggest that due process is indeed an effective way to produce more favorable employee reactions to performance appraisal; all of the correlations were moderate to large. Each aspect of due process will be considered in turn below, as will the implications of the results.

Adequate Notice. Adequate notice requires that the person being judged or evaluated by a system be aware of the standard against which s/he is being judged before being evaluated by the system. As applied to performance appraisal, it requires that employees are aware of the performance standards by which they will be evaluated, and are given frequent feedback about their performance relative to those standards.

Knowledge of performance standards is a system-oriented (Erdogan et al., 2001) aspect of due process. It involves, for instance, knowledge of standards through job descriptions and published documents related to organizational performance goals, and is often gained by employee initiative (Levy & Williams, 2000). It was, therefore, proposed that procedural and distributive justice would mediate the relationship between knowledge of standards and reactions. That is, knowledge of standards should make the performance management system and the appraisal process seem fairer, and the employee

should be better able to perform to set standards and, thus, receive a more favorable review. This (Hypothesis 4) was supported, at least in part: procedural and distributive justice partially mediated the relationship between knowledge of standards and reactions.

Feedback frequency has received a good amount of attention in the performance appraisal literature for decades, and has been included as a central variable to the feedback environment of performance appraisal (e.g. Kinicki et al., 2001) and to the overall performance management process (Ilgen et al., 1979; Klein & Snell, 1994). It was proposed that feedback frequency should also be related to perceptions of procedural and distributive justice, for reasons similar to those for knowledge of standards, but that feedback frequency should also be related to interactional justice, since it is a relatively discretionary appraisal-related behavior (Cleveland & Murphy, 1991). This (Hypothesis 5) was supported and results seem to indicate that feedback frequency is indeed discretionary since it was most strongly related to interactional justice.

While these results suggest that the relationship between feedback frequency and reactions is positive overall, there are inconsistent results across studies. It was accordingly proposed (Hypothesis 6) that the relationship between feedback frequency and reactions would be stronger as the relationship between rating favorability and reactions increased. That is, reactions to feedback are determined not only by feedback frequency, but feedback sign as well (Ilgen et al., 1979; Landy et al., 1978; Kinicki et al., 2004; Kluger & DeNisi, 1996), such that reactions to appraisals will be most positive when both feedback is frequent and the subsequent rating is more positive. Thus hypothesis was supported, indicating that some of the variability in the relationship between feedback frequency and reactions is due to the relationship between rating

favorability and reactions. Future research should measure both aspects of the feedback environment, and test this moderating effect across different types of samples and organizational settings.

These results suggest that employee awareness of performance standards, and feedback about how their performance compares to these standards prior to the appraisal, can result in more positive employee reactions to performance appraisal, perhaps especially when ratings are more favorable. While the importance of regular feedback for employees has been touted by practitioners and by models of the appraisal, these results provide some evidence as to the importance of regular feedback. They also suggest that knowledge of standards is important, perhaps even more important than feedback frequency. Of course, performance feedback is meaningless without knowledge of performance standards, so it would seem that the two go hand-in-hand and are complementary. Future research should, therefore, consider that extent to which knowledge of performance standards and frequent feedback are complimentary, i.e. the extent to which frequent feedback enhances the positive relationship between knowledge of performance standards and employee reactions.

These results suggest that organizations should implement processes that increase employee knowledge of performance standards, both through formal and informal channels. For instance, publication of performance standards for various job families in organizational handbooks would seem to be helpful. Increasing supervisor-subordinate discussions of performance standards and goals throughout the year (and not just during the appraisal session) would also seem to be helpful. Employee knowledge of performance standards should be beneficial not just to employees – but to organizations

as well. Research indicates that most performance management systems do not align strategic organizational goals with employee behaviors or the assessment of these behaviors. For the performance management system to have an effect on an organization's bottom line and thus contribute to a high performance work system, it is important that organizations and their managers make these goals and standards salient to employees, and a salient aspect of their performance assessment.

Fair Hearing. A fair hearing involves the opportunity for the person being judged by a system, in this case a performance appraisal system, to present evidence on one's behalf, as well as knowledge on the part of the person doing the judging about the facts of the situation, in this case knowledge about the employee's job and his or her performance as related to the requirements of that job. A previous meta-analysis (Cawley et al., 1998) established, using data from 27 studies, that the former, i.e. employee participation, was positively related to employee reactions to appraisals.

Since bivariate meta-analytic relationships between participation and employee reactions were the focus of the Cawley et al. (1998) study, it is reassuring that, even when adding to (sometimes doubling) the number of studies reported for a particular correlation, results are quite consistent. What is also important here is one of the more prominent findings of the previous meta-analysis, that value-expressive voice was more strongly related to employee reactions than instrumental participation, is buttressed (Hypothesis 7). Scholars have been critical of the proposition that value-expressive voice is more strongly related to reactions to performance appraisal than instrumental voice (Bonness & Macan, 2006; Suh, 1992). It seems logical that instrumental voice would be as important or more important than value-expressive voice, since this involves not only

voice, but additionally the sense that one has controlled the outcome of the appraisal, which should result in favorable results for the employee.

In order to test the voracity of the proposition that value-expressive voice is more strongly related to employee reactions than is instrumental voice, a proposition was developed, based on justice theory, that rating favorability might moderate the way in which voice is related to reactions. More specifically, it was proposed that value-expressive voice would be more important when the relationship between rating favorability and reactions was strong (Hypothesis 8a); if the employee is already satisfied because of his or her rating, then instrumental control is less important. Conversely, it was proposed that instrumental voice would be more important when the relationship between rating favorability and reactions was weak (Hypothesis 8b); if one is dissatisfied because of one's rating, then instrumental control would be more important. Results were unsupportive of either hypothesis.

One might alternatively propose that since the data upon which this study is based are cross-sectional and reflective, the relationship between instrumental voice and reactions might actually be made weaker when the relationship between rating favorability and reactions is high. That is, if one is dissatisfied with one's appraisal because of a poor rating, then the extent to which instrumental control was exercised might exacerbate this dissatisfaction because the instrumentality was unsuccessful. Of course, this perspective would not be supported either since the results of the hypothesis tests were non-significant.

While the finding that the relationship between rating favorability and employee reactions did not moderate relationships between instrumental- and value-expressive

voice and employee reactions is inconsistent with the notion in the organizational justice literature that procedural justice and outcome favorability should interact to predict reactions towards organizational decisions, it is consistent with the proposition that voice for the sake of voice, i.e. regardless of outcome favorability, is important (Cawely et al., 1998; Lind, 2001). Moreover, the two-way interaction between procedural justice and outcome favorability is also inconsistently demonstrated empirically in the justice literature, suggesting that the latter does not attenuate the former under all circumstances. While it was suggested here that this may be due to the differences between instrumental and value-expressive voice, it seems that there are other explanations for this inconsistency that should be explored.

Results related to participation in the appraisal support both the self-interest and group-value models of procedural justice (Lind & Tyler, 1988). The former posits that persons desire control over processes that affect them so that they can affect more positive outcomes from the process for themselves (Thibaut & Walker, 1975). As applied to performance appraisal, this would suggest that instrumental voice is important to employees because they can influence the process and the outcome. The group-value model posits that persons want to express voice in processes that affect them not for control, but so that their perspective is heard. Since value-expressive voice was more strongly related to employee reactions than was instrumental voice, and since the relationship between voice (both forms) and reactions was not related to relationship between rating favorability and reactions, this gives further credence to the thesis that employees desire voice for voice's sake—regardless of control for self-interested reasons (Tyler, 1989).

In fact, of all the different forms of participation in the appraisal, the correlation between reactions and instrumental voice was the weakest, excepting self-appraisal. Since Cawley and colleagues (1998) did not measure the relationship between goal setting and reactions, it is important to note here that goal setting is strongly related to reactions. Employee participation in the appraisal can take various forms, and since goal setting has been found to be related to a variety of positive outcomes for employees and organizations, e.g. increased motivation and performance, implementing goal setting into the appraisal seems to be an effective way to not only manage employee performance, but also to keep employees interested in and satisfied with the appraisal process.

It is also interesting to note that the correlation between self-appraisal and reactions is about half the size of most of the correlations between reactions and other forms of participation (which is also consistent with Cawley et al., 1998). This is consistent with the observation made above that some studies find positive results for self-appraisal while others do not. Reasons for this should be articulated an explored, since many organizations encourage self-appraisal. One reason could be the potential for disagreement that this creates, which could create both psychological dissonance, as well as actual conflict in the appraisal session and afterwards.

These results suggest that, regardless of the favorability of one's performance rating, it is important for organizations and supervisors to allow employee participation in the appraisal process. To the extent that employees are given opportunity to set goals prior to the appraisal, and participate in the appraisal by voicing their opinion about their performance, perceptions of justice increase, thereby producing more favorable reactions to the appraisal. This is consistent with textbook descriptions of effective performance

appraisal systems (e.g. Noe et al., 2000), but managers vary in the extent to which they are likely to allow employee input into the process.

Organizations should, therefore, consider interventions designed to enhance employee participation, such as training programs for employees and managers. One way to increase employee participation is through self-appraisal. That said, the qualitative review above highlighted the inconsistent relations between self-appraisal and reactions, and the quantitative review found that self-appraisal was only modestly related to reactions. Perhaps the best way to increase employee participation is to adopt a mutual problem-solving approach to the appraisal, wherein managers and employees share in the responsibility of diagnosing and remedying performance problems (e.g. Wexley, Singh & Yukl, 1973). In this way, employee participation is encouraged, and future goals are set based on mutual and open discussion between managers and employees.

In addition to participation in the appraisal, supervisor job knowledge of employee performance is a key aspect of a fair hearing. It was proposed (Hypothesis 9) that distributive justice would mediate the relationship between supervisor job knowledge and employee reactions. If an employee believes that his or her supervisor is aware of and knowledgeable about his or her performance, this should increase the perception that the supervisor is able to provide a valid and fair rating, thus increasing perceptions of distributive justice.

Distributive justice partially mediated the relationship between supervisor job knowledge and employee reactions, which supports the notion that perceptions of outcome fairness increase due to perceived supervisor job knowledge and also explain why employee reaction are more favorable when this knowledge is relatively high. Future

research should attempt to uncover the circumstances under which perceptions of supervisor job knowledge are increased. This has yet to be investigated in the employee reaction literature.

Judgment Based on Evidence. The judgment based on evidence component of due process requires that decisions are made that are consistent and free from bias, and that decisions can be appealed. Supervisor lack of bias and the availability of an appeals process have both been measured in the employee reaction literature as correlates of employee reactions.

While supervisor lack of bias is an aspect of due process and, hence, procedural fairness, it was proposed (Hypothesis 10) that perceived lack of bias would be related to distributive and interactional justice (perceptions of procedural justice have not been measured as a correlate in the extant literature), and that these justice perceptions would mediate the relationship between lack of bias and reactions. If an employee perceives his or her supervisor to be unbiased, then the supervisor should be perceived as providing better interpersonal treatment; the extent to which a supervisor is biased is likely to be perceived as discretionary, at least in part, and not determined by the appraisal system itself. Moreover, if there is a lack of bias, perceptions of outcome fairness should increase since the outcome was determined by a fair decision maker.

This hypothesis was supported: perceptions of distributive and interactional justice completely mediated the relationship between supervisor lack of bias and reactions, indicating that employees associate lack of bias with better interpersonal treatment and outcome fairness, and that this results in more positive reactions to the appraisal. Future research should investigate procedural justice as a correlate of lack of

bias, in addition to interactional and distributive justice, in order to determine if perceptions of procedural fairness explain additional variance in reactions. It seems interesting that an aspect of due process is completely mediated by justice perceptions—but not procedural justice perceptions.

Since supervisors are not always unbiased, different forms of performance rating instruments have been developed in an attempt to increase the fairness of the appraisal. This "psychometric" approach to performance appraisal effectiveness has been criticized, but results indicate that behavior observation scales are viewed more favorably by employees than other types of rating formats (i.e. graphic rating scales, Hypothesis 11). While only based on three studies, the correlation between rating instrument type and reactions was the smallest of all due process variables. Rating instrument type is somewhat different from instrument validity, which has not been investigated as a correlate of employee reactions in the extant literature, but should be.

For decisions to be free from bias, they should be based on relevant information. As applied to performance appraisal, a performance rating should be based on job-relevant information. Employee perceptions of judgment based on evidence have been measured as a correlate of appraisal reactions. It was proposed (Hypothesis 12) that perceptions of interactional and procedural justice would mediate the relationship between judgment based on evidence and reactions, since this should increase the perception that the process by which performance was evaluated was fair, as well as the perception that interpersonal treatment was fair, given that it is often somewhat

discretionary as to which factors will be used to evaluate performance. Procedural justice[18] partially mediated the relationship between job-relevant factors and reactions.

Finally, judgment based on evidence requires that the outcome of a decision process should be appealable. It was proposed that the opportunity to appeal one's performance rating would be positively related to employee reactions, which was supported; the meta-analytic correlation was large, .60. This correlation was based on only four studies, so future research should include appeals processes as an antecedent of employee reactions, and should investigate under what circumstances an appeals process is most effective. For instance, it seems logical that appeals processes are most desirable to employees when they feel that they have been treated unfairly interpersonally, which would increase the perception of bias in the appraisal system, or when they feel their rating is inaccurate.

This set of results supports the proposition that each aspect of judgment based on evidence, i.e. supervisor lack of bias, judgment based on job-relevant factors and an appeals process, should be related to perceptions of justice in the performance appraisal and, hence, more positive appraisal reactions. Since bias in the appraisal can be due to a variety of factors, such as political considerations, interpersonal biases (e.g. aversive sexism or racism), etc., organizations should consider using ratings formats that are relatively more objective, namely behavioral observation scales, as well as providing employees with decision recourse.

Behavioral observation scales are meant to maximize the extent to which ratings are based on job-relevant factors, and appeals processes are meant to scrutinize the extent to which ratings – and related decisions – were based on job-relevant factors, and not

[18] There were too few effect sizes to include interactional justice in the model.

extraneous influences, such as bias. Interestingly, judgment based on job-relevant factors and decision recourse are not included as "characteristics of effective performance feedback processes" in major human resource management textbooks (e.g. Noe et al., 2000), but results of this dissertation suggest that are related in important ways to employee reactions to appraisals, and should thus be given adequate attention from organizations.

8.3 Additional Study Limitations and Future Research Directions

As is the problem with much of the empirical research in the organizational sciences, and with meta-analyses of this literature (e.g. Cohen-Carash & Spector, 2001; Colquitt et al., 2001), the effect sizes included in the database for this meta-analysis were almost exclusively based on cross-sectional, percept-percept data. This is a concern not only because of the potential for effect sizes to be inflated, but also because this limits the extent to which research sheds light on the process by which employee reactions occur. That said, meta-analysis allows for 1) more stable estimates of bivariate relationships, which is important to the current study given discrepancies in the extant literature in terms of magnitude and sometimes direction of effects, 2) tests of moderators of bivariate relationships, which is also highly relevant to the current study in terms of including rating favorability as a potential moderator of relationships between voice, feedback frequency and employee reactions, and 3) meta-analytic path analysis is well-suited for clarifying empirical models and informing theory (e.g. Fassina, Jones, & Uggerslev, 2008). Some researchers (e.g. Pettijohn et al., 2001) have begun to test some aspects of the performance appraisal process over time, and future researchers should continue to employ more longitudinal research designs.

The model developed in this paper contends that social interactions and procedural elements of performance appraisals – which occur or are revealed both before and during the actual appraisal session – affect employee perceptions of appraisal justice, which then affect employee reactions. Results are largely supportive of this process model, but are not as yet conclusive given the cross-sectional nature of this research domain. Future research should test the robustness of this model with longitudinal research -- which measures contextual antecedents before the appraisal, and reactions after the appraisal.

For instance, researchers could measure relationship quality and feedback frequency before the appraisal, then measure perceptions of justice shortly after the appraisal, and follow-up with subsequent measures of employee reactions, such as motivation to improve, as well as actual performance measures. In this way, one could more fully understand how relationship quality and pre-appraisal feedback interact and affect employee perceptions of fairness of the appraisal, and how perceptions of fairness affect reactions and, ultimately, performance. This would be a more robust test of the process model developed in this dissertation.

In fact, it is likely that the process model may act as a sort of feedback loop such that appraisal processes deemed to be fair and satisfactory lead to increased performance, which then leads to more positive supervisor-subordinate interactions, which then leads to a more favorable session during the next appraisal period. Likewise, appraisal processes that are deemed to be unfair and unsatisfactory may lead to performance decreases and, thus, a less positive experience during the next appraisal session and, perhaps ultimately, reduced commitment and increased burnout. Researchers should,

therefore, measure perceptions of appraisal processes, reactions to appraisals and job performance at multiple points in time over more than one appraisal period.

It is also important to include employee individual difference variables in future research on appraisal reactions. Very few studies in the current database included employee individual differences as correlates of appraisal reactions. It is possible – perhaps likely – that reactions to appraisals may differ according to individual differences, such as personality. For instance, individuals who are higher on trait negative affectivity may respond less favorably to negative feedback, all else equal. Integrating measures of individual differences into models of appraisal reactions, therefore, could potentially explain more variance in reactions, and provide more stable estimates of substantive relationships between social contextual and process-oriented variables as they relate to reactions.

Differences in employee performance prior to the appraisal should also be measured and included in models of appraisal reactions. While some studies did so in the current database, future research should more thoroughly investigate how employees with different performance levels respond differentially to appraisal feedback and to different aspects of the performance appraisal process. For instance, it may be the case that for high performers, better interpersonal treatment is most likely to lead to more positive reactions and subsequent positive outcomes, such as increased organizational commitment and performance increases. For low performers, using job-relevant factors in the appraisal and mutual goal setting may be more likely to lead to positive appraisal reactions and performance increases. This has important implications for the way in

which performance appraisals are tailored to different types of employees, and for the way in which performance feedback is delivered.

8.4 Summary of Study Contributions and Conclusion

Employee reactions to performance appraisal have long been an interest to researchers and to managers, but have only recently received extensive research attention. The purpose of this dissertation was to organize this disconnected literature by developing an integrative framework and hypotheses about when and why contextual antecedents are related to employee reactions. In this way, the critical science-practice gap, "Why do employees react differentially to performance appraisals" – or, perhaps more accurately "Why do employees react so negatively to performance appraisals" – was addressed by identifying and organizing the antecedents of employee reactions studied in the extant literature into conceptually meaningful groups, identifying and testing the boundary conditions of these antecedents, and identifying and testing the mediators of the relationships between various antecedents and employee reactions.

Two sets of antecedents were shown to be related in important ways to employee reactions: social contextual variables and due process performance appraisal characteristics. Heretofore, these antecedents were typically studied in a bivariate fashion with little consideration of their interrelatedness, and when and why they should be related to reactions. Results suggest that reactions are the result of a somewhat complex process whereby perceptions of justice mediate relationships between appraisal context and reactions – and rating favorability moderates relationships between appraisal context (i.e. feedback frequency) and reactions.

Future research should continue to address the reasons why contextual antecedents predict employee reactions (mediation) and under what circumstances (moderation) as to come to a more thorough understanding of the employee reactions nomological net, and to guide practical applications of this research. The framework developed in this study can serve as a guide for this research, and a preliminary nomological net.

Appendices

APPENDIX A:
Definitions of Due Process Performance Appraisal Dimensions and Sub-Dimensions and Corresponding Chapter Sections

Due Process Dimensions

Adequate Notice (Ch. 5, Section 2)
Employees are held accountable for performance standards they understand.

Fair Hearing (Ch. 5, Section 3)
Employees are given a review/hearing regarding their performance rating.

Judgment Based on Evidence (Ch. 5, Section 4)
Performance ratings are based on objective performance-related factors.

Sub-Dimensions

Knowledge of Standards
Employees are made aware of performance standards, e.g. through organizational publication and dissemination of standards.

Frequent Feedback
Supervisors provide frequent performance feedback to employees so that they may perform to expectations.

Formal Review
Formal performance reviews are held in order to provide feedback regarding performance ratings.

Employee Participation
Employees have an opportunity to participate in the review and express their opinions regarding their performance.

Supervisor Job-Related Knowledge
The supervisor (rater) is knowledgeable about a ratee's job and job-related performance.

Supervisor Neutrality/Lack of Bias
The supervisor (rater) judges performance in a neutral way, i.e. without bias (either positive or negative) towards any particular employee.

Valid Rating Instrument
The appraisal instrument is based on valid performance dimensions.

Job-Relevant Factors
Performance is rated based on objective, job-relevant performance dimensions.

Appeals Process
Employees (ratees) have opportunity to appeal their performance rating.

References

Adams, S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology, 67*, 422-436.

Ambrose, M. L., Hess, R.L., & Ganesan, S. (2007). The relationship between justice and attitudes: An examination of justice effects on event and system-related attitudes. *Organizational Behavior and Human Decision Processes, 103*, 21-36.

Arvey, D., & Murphy, K. (1998). Performance evaluation in work settings. *Annual Review of Psychology, 49*, 141-168.

Balzer, W.K., Sulsky, L.M. (1990). Performance appraisal effectiveness. In Murphy, K.R., Saal, F.E. (Eds), *Psychology in Organizations: Integrating Science and Practice*. Erlbaum, Hillsdale, NJ, pp.133-56.

*Bartol, K.M., Durham, C.C., & Poon, J.M.L. (2001). Influence of performance evaluation rating segmentation on motivation and fairness perceptions. *Journal of Applied Psychology, 86* (6), 1106-1119.

Bassett, G.A., & Meyer, H.H. (1968). Performance appraisal based on self-review. *Personnel Psychology, 21*, 421-430.

Bernardin H.J., & Beatty, R.W. (1984). *Performance appraisal: Assessing human behavior at work*. Boston, MA: Kent Publishing Co.

Bies, R.J. (1987). The predicament of injustice: The management of moral outrage. In Cummings, L.L, Staw, B.M. (Eds), *Research in Organizational Behavior*. JAI Press, Greenwich, CT, Vol. 9 pp.289-319.

Bies, R.J., & Moag, J.S. (1986). Interactional justice: Communication criteria of fairness. *Research on Negotiation in Organizations*. JAI Press.

*Bonness, B., & Macan, T. (2006). *Reactions to the performance appraisal process: Effects of self-appraisals*. Paper Presented at the Society for Industrial-Organizational Psychology conference.

*Boswell, W.R., & Boudreau, J.W. (2000). Employee satisfaction with performance appraisals and appraisers: The role of perceived appraisal use. *Human Resource Development Quarterly, 11* (3), 283-299.

Brockner, J. (2002). Making sense of procedural fairness: How high procedural fairness can reduce or heighten the influence of outcome favorability. *Academy of Management Review, 27* (2), 58-76.

Brockner, J., & Wiesenfeld, B.M. (1996). An integrative framework for explaining reactions to decisions: Interactive effects of outcomes and procedures. *Psychological Bulletin, 120*, 189-208.

*Brown, M., & Benson, J. (2003). Rated to exhaustion? Reactions to performance appraisal processes. *Industrial Relations Journal, 34* (1), 67-81.

*Buehler, L.M. (2006). *Due process dimensions of performance appraisal, perceptions of organizational justice, and some outcomes.* Unpublished Doctoral Dissertation, DePaul University.

**Burke, R.J. (1970). Characteristics of effect performance appraisal interviews: Open communication and acceptance of subordinate disagreements. *Training and Development Journal, 24*, 9-12.

**Burke, R.J., Weitzel, W., & Weir, T. (1978). Characteristics of effective employee performance review and development interviews: Replication and extension. *Personnel Psychology, 31*, 903-919.

**Burke, R.J., & Wilcox, D.S. (1969). Characteristics of effective employee performance review and development interviews. *Personnel Psychology, 22*, 291-305.

**Bustamante, C., & Dickinson, T.L. (1996). *Some determinants of employee attitudes about the performance appraisal process.* Paper presented at the 11th annual conference of the Society for Industrial and Organizational Psychology, San Diego.

Caplan, R., Cobb, S., French, J., Harrison, R., & Pinneau (1975). Jod demands and worker health. Ann Arbor, MI, Institute for Social Research.

Caplan, R., Harrison, R., Wellons, R., & French. J. (1980). Social support and patient adherence: Experimental and survey findings. Ann Arbor, MI, Institute for Social Research.

Cardy, R.L., & Dobbins, G.H. (1994). *Performance appraisal: Alternative perspectives.* Cincinnati, OH: Southwestern Publishing.

Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation: A control-theory approach to human behavior.* New York: Springer.

Cawley, B.D., Keeping, L.M., & Levy, P.E. (1998). Participation in the performance appraisal process and employee reactions: A meta-analytic review of field investigations. *Journal of Applied Psychology, 83* (4), 615-633.

Cleveland, N. J., & Murphy, K. R. (1992). Analysis of performance appraisal as goal-directed behavior. In G. Ferris & K. Rowland (Eds.), *Research in personnel and human resource management* (Vol. 10, pp. 121-185). Greenwich, CT: JAI Press.

*Cobb, A.T., Vest, M., & Hills, F. (1997). Who delivers justice? Source perceptions of procedural fairness. *Journal of Applied Social Psychology, 27* (12), 1021-1040.

Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes, 86*, 278-321.

Colquitt, J.A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology, Vol. 86*, 386-401.

Colquitt, J.A., Wesson, M.J., Porter, C.O.L.H., Conlon, D.E., Ng, K.Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86*, 425-46.

Cook, J., & Crossman, A. (2004). Satisfaction with performance appraisal systems. *Journal of Managerial Psychology, 19* (5), 526-541.

Cook, J., & Wall, T. (1980). New work attitude measures of trust, organizational commitment and personal need non-fulfillment. *Journal of Occupational Psychology 53*, 39–52.

Dansereau, F., Graen, G., & Haga, W.J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance, 13*, 46–78.

*DeGregorio, M., & Fisher, C.D. (1988). Providing performance feedback: Reactions to alternate methods. *Journal of Management, 14* (4), 605-616.

DeShon, R. (2002). A generalizaiblity theory perspective on measurement error corrections in validity generalization. In K. R. Murphy (Ed.). Validity Generalization: A critical review. Mahwah, NJ: Erlbaum.

Dienesch, R.M., & Liden, R.C., 1986. Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review, 11*, 618–634.

**Dipboye, R.L., & de Pontbriand, R. (1981). Correlates of employee reactions to performance appraisals and appraisal systems. *Journal of Applied Psychology, 66* (2), 248-251.

**Dobbins, G.H., Cardy, R.L., & Platz-Vieno (1990). A contingency approach to appraisal satisfaction: An initial investigation of the joint effects of organizational variables and appraisal characteristics. *Journal of Management, 3*, 619-632.

*Dobbins, G.H., Platz, S.J., Houston, J. (1993). Relationship between trust in appraisal and appraisal effectiveness: A field study. Journal of Business and Psychology, 7 (3), 309-322. Database 3-3-2009.

*Dorfman, P.W., Stephan, W.G., & Loveland, J. (1986). Performance appraisal behaviors: Supervisor perceptions and subordinate reactions. *Personnel Psychology, 39*, 579-597.

*Dulebohn, J.H., & Ferris. G.R. (1999). The role of influence tactics in perceptions of performance evaluation's fairness. *Academy of Management Journal, 42* (3), 288-303.

*Elicker, J.D. (2000). *An organizational justice explanation of feedback reactions in different leader-member exchange relationships*. Unpublished Doctoral Dissertation, University of Akron.

Elicker, J.D., Levy,. P.E., & Hall, R.J. (2006). The role of leader-member exchange in the performance appraisal process. *Journal of Management, 32* (4), 531-551.

Erdogan, B. (2002). Antecedents and consequences of justice perceptions in performance appraisals. *Human Resource Management Review, 12*, 555-578.

*Erdogan, B., Kraimer, M.L., & Liden, R.C. (2001). Procedural justice as a two-dimensional construct: An examination in the performance appraisal context. *Journal of Applied Behavioral Science, 37*, 205-222.

**Evans, E.M., & McShane, S.L. (1988). Employee perceptions of performance appraisal fairness in two organizations *Canadian Journal of Behavioral Science, 20* (2), 177-191.

Fahr, J.L., Werbel, J.D., & Bedeian, A.G. (1988). An empirical investigation of self-appraisal-based performance evaluation. *Personnel Psychology, 41*, 141–156.

Fassina, N. E., Jones, D. A., & Uggerslev, K. L. (2008). Relationship clean-up time: Using meta-analysis and path analysis to clarify relationships among job satisfaction, perceived fairness, and citizenship behaviors. *Journal of Management, 34*, 161–188.

Feldman, J.M. (1981). Beyond attribution theory: Cognitive processes in performance appraisal. *Journal of Applied Psychology, 66*, 127-148.

*Folger & Konovsky (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal, 32* (1), 115-130.

Folger, R., Konovsky, M., & Cropanzano, R. (1992). *A due process model of performance appraisal*. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 14, pp. 129-177). Greenwich, CT: JAI Press.

Fox, A. (2009). Curing what ails performance reviews. *HR Magazine, 54* (1), 52-56.

*[a]French, J.P., Kay, E., & Meyer, H.H. (1966). Participation and the appraisal system. *Human Relations, 19* (3), 3-20.

*Gabris, G.T., & Ihrke, D.M. (2000). Improving employee acceptance toward performance appraisal and merit pay systems: The role of leadership credibility. *Review of Public Personnel Administration, 20*, 41-53.

*Gaby, S.H. (2004). *Summarizing and measuring participants' perceptions related to performance appraisal effectiveness*. Unpublished Doctoral Dissertation, University of Tennessee, Knoxville.

Gerstner, C.R., & Day, D.V. (1997). Meta-analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*, 827–844.

*Giles, W.F., Findley, H.M., & Field, H.S. (1997). Procedural fairness in performance appraisal: Beyond the review session. *Journal of Business and Psychology, 11* (4), 493-506.

**Giles, W.F., & Mossholder, K.W. (1990). Employee reactions to contextual and session components of performance appraisal. *Journal of Applied Psychology, 75* (4), 371-377.

Gill, H. (2005). *Reactions to injustice: Development and validation of a measure*. Unpublished Doctoral Dissertation, The University of Western Ontario.

Gouldner, A.W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25, 161-177.

Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review, 12*, 9-22.

Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management, 16*, 399-432.

Greenberg, J. (1993). The social side of fairness: Interpersonal and information classes of organizational justice. In R. Cropanzano (Ed.), *Justice in the Workplace: Approaching fairness in human resource management* (pp. 79-103). Hillsdale, NJ: Erlbaum.

**Greller, M.M. (1975). Subordinate participation and reactions to the appraisal interview. *Journal of Applied Psychology, 60* (5), 544-549.

**Greller, M.M. (1978). The nature of subordinate participation in the appraisal interview. *Academy of Management Journal, 21* (4), 646-658.

Hackman, J.R., & Oldham, G.R. (1974). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*, 159-170.

Hedges, L.V. & Olkin, I. (1985). Statistical methods for meta-analysis. Orlando: Academic Press.

Hedges, L.V., & Vevea, J.L. (1998). Fixed and random-effects models in meta-analysis. Psychological Methods, 3, 486-504.

*Hillery, J.M., & Wexley, K.N. (1974). Participation effects in appraisal interviews conducted in a training session. *Journal of Applied Psychology, 59* (2), 168-171.

*Horner, M.T., Cook, A.L., & Payne, S.C. (2008). When does affect relate to performance appraisal reactions? The moderating role of situational constraints. Paper presented at the annual meeting of the Society for Industrial Organizational Psychology, San Francisco, CA.

Horvath, M., & Andrews, S.B. (2007). The role of fairness perceptions and accountability attributions in predicting reactions to organizational events. *Journal of Psychology, 14* (2), 203-222.

House, J. (1981). *Work stress and social support.* Addison-Wesley, Reading.

*Hubbel, A.P., & Chory-Assad (2005). Motivating factors: Perceptions of justice and their relationship with managerial and organizational trust. *Communication Studies, 56* (1), 47-70.

*Hurd, B., Byrne, Z.S., & Gross, M.A. (2009). Moderation of communication medium richness on reactions to task feedback. Paper Presented at the annual conference of the Society of Industrial and Organizational Psychology, New Orleans, LA.

Ilgen, D.R., Barnes-Farrell, J.L., & McKellin, D.B. (1993). Performance appraisal process research in the 1980's: What has it contributed to appraisals in use? *Organizational Behavior and Human Decision Processes, 54*, 321-368.

*Igoumenopolous, K. (2001). *Factors relating to performance appraisal satisfaction and acceptance of lower-level employees.* Unpublished Master's thesis, San Jose State University.

Ilgen, D.R., Fisher, C.D., & Taylor, M.S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology, 64*, 349-371.

**Ilgen, D.R., Peterson, R.B., Martin, B.A., & Boeschen, D.A. (1981). Supervisor and subordinate reactions to performance appraisal sessions. *Organizational Behavior and Human Performance, 28*, 311-330.

**Inderrieden, E.J., Allen, R.E., & Keaveny, T.J. (1992). *An investigation of the antecedents and consequences of voluntary self-ratings in a performance appraisal*

system. Paper presented at the Annual Conference of the Academy of Management, Las Vegas.

*Inderriden, E.J., Allen, R.E., Keavey, T.J. (2004). Managerial discretion in the use of self-ratings in an appraisal system: The antecedents and consequences. *Journal of Managerial Issues, 16* (4), 460-482.

**Inderrieden, E.J., Keaveny, T.J., & Allen, R.E. (1988). Predictors of employee satisfaction with the performance appraisal process. *Journal of Business and Psychology, 2* (4), 306-310.

*Jawahar, I.M. (2006). An investigation of potential consequences of satisfaction with appraisal feedback. *Journal of Leadership and Organizational Studies, 13* (2), 14-28.

*Jawahar, I.M. (2006). Correlates of satisfaction with performance appraisal feedback. *Journal of Labor Research, 2*, 213-235.

*Jawahar, I.M. (2007). The influences of perceptions of fairness on performance appraisal reactions. *Journal of Labor Research, 28*, 735-754.

*Johnson, J.S. (2003). *Employees' justice perceptions of performance appraisal systems: Attitudinal, behavioral, and performance consequences*. Unpublished Doctoral Dissertation, Portland State University.

*Kacmar, K.M., Wayne, S.J., & Wright, P.M. (1996). Subordinate reactions to the use of impression management tactics and feedback by the supervisor. *Journal of Managerial Issues, 8* (1), 35-53.

*Kamer, B. (2006). *Key factors contributing to effectiveness in the performance appraisals of military cadres*. International Military Testing Association Conference.

*Kavanagh, P., Benson, J., & Brown, M. (2007). *Understanding performance appraisal fairness Asia Pacific Journal of Human Resources, 45* (2), 132 - 150.

Kay, E.. Meyer, H. H., & French, 1. R. P. (1965). Effects of threat in a performance appraisal interview. *Journal of Applied Psychology, 49*, 311-317.

*Keeping, L.M. (2000). *The frustration effect and self-ratings: Do explanations and individual differences matter*? Unpublished Doctoral Dissertation, University of Akron.

*Keeping, L.M., & Levy, P.E. (2000). Performance appraisal reactions: Measurement, modeling, and method bias. *Journal of Applied Psychology, 85* (5), 708-723.

*Kinicki, A.J., Prussia, G.E., Wu, B., & Mckee-Ryan, F.M. (2004). A covariance structure analysis of employee's response to performance feedback. *Journal of Applied Psychology, 89* (6), 1057-1069.

Kleiman, L.S., Biderman, M.D., & Faley, R.H. (1987). An examination of employee perceptions of a subjective performance appraisal system. *Journal of Business and Psychology, 2* (2), 112-121.

**Klein, H.J., & Snell, S. (1994). The impact of interview process and context on performance appraisal interview effectiveness. *Journal of Managerial Issues, 6* (2), 160-175.

Klein, H.J., Snell, S.A., & Wexley, K.N. (1987). Systems model of the performance appraisal interview process. *Industrial Relations, 26 (3)*, 267–280.

Kluger, A.N. & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin, 119*, 254-284.

**Korsgaard, M.A., & Roberson, L. (1995). Procedural justice in performance evaluation: The role of instrumental and non-instrumental voice in performance appraisal discussions. *Journal of Management, 21* (4), 657-669.

**Korsgaard, M.A., Robserson, L., & Rymph, R.D. (1996). *Promoting fairness through subordinate training: The impact of subordinate communication style of manager's fairness*. Paper presented at the 11th Annual Conference of the Society for Industrial and Organizational Psychology, San Diego.

*Korsgaard, M.A., Roberson, L., & Rymph, R.D. (1998). What motivates fairness? The role of subordinate assertive behavior on manager's interactional fairness. *Journal of Applied Psychology, 83* (5), 731-744.

**Landy, F.J., Barnes, J.L., & Murphy (1978). Correlates of perceived fairness and accuracy of evaluation. *Journal of Applied Psychology, 63* (6), 751-754.

Landy, F. J., & Farr, J. L. (1980). Performance rating. *Psychological Bulletin, 87*, 72-107. LaRacco, J. M., House, J. R. & French, J. R. P. (1980). Social support, occupational stress, and health. *Journal of Health and Social Behavior, 21*, 202-218.

Larson, J.R. (1984). The performance feedback process: A preliminary model. *Organizational Behavior and Human Performance, 33*, 42-76.

Lee, J.S.Y., & Akhtar, S. (1996). Determinants of employee willingness to use feedback for performance improvement: cultural and organizational interpretations. *International Journal of Human Resource Management, 7* (4), 879-890.

*Lee, M., & Son, B. (1998). The effects of appraisal review content on employee's reactions and performance. *International Journal of Human Resource Management, 9* (1), 203-214.

Leventhal, G.S. (1980). What should be done with equity theory?. In: K.J. Gergen, M.S. Greenberg, & R.H. Willis, (Eds), *Social exchange: Advances in theory and research.* Plenum: New York. (pp. 27–55).

*Levy, P.E., Cawley, B.D., & Foti, R. (1998). Reactions to appraisal discrepancies: Performance ratings and attributions. *Journal of Business and Psychology, 12* (4), 437-455.

*Levy, P.E. & Williams, J.R. (1998). The role of perceived system knowledge in predicting appraisal reactions, job satisfaction, and organizational commitment. *Journal of Organizational Behavior, 19*, 53-65.

Levy, P.E. & Williams, J.R. (2004). The social context of performance appraisal. *Journal of Management, 30* (6), 881-905.

Liden, R.C., Sparrow, R.T., & Wayne, S.J. (1997). Leader member exchange theory: The past, present and the potential future. *Research in Personnel and Human Resources Management, 15*, 47-119.

Lind, E.A., & Tyler , T.R. (1988). *The social psychology of procedural justice.* N.Y.: Plenum.

Lipsey, M.W., & Wilson, D.B. (2001). Practical meta analysis. *Applied Social Research Methods Series*, vol. 49. Thousand Oaks: Sage.

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall

Locke, E. A., & Schweiger, D. M. (1979). Participation in decision-making: One more look. In B. M. Staw (Ed.), *Research in organizational behavior* (Vol. 1) (pp. 265–340). Greenwich, CT: JAI Press.

*Lundquist, C., Kudisch, J.D., & Fortunato, V. (2004). *Influence of perceptions of fairness on performance appraisal effectiveness.* Presented at the Society for Industrial-Organizational Psychology conference, Chicago, IL.

Masterson, S.S., Lewis, K., Goldman, B.M. & Taylor, M.S. (2000). Integrating justice and social exchange: the differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal, 43*, 738–748.

McFarlin, D.B, & Sweeney, P.D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Academy of Management Journal, 35*, 626–637.

*Miller, J. (2001). Self-monitoring and performance appraisal satisfaction: An exploratory field study. *Human Resource Management, 40* (4), 321-332.

Moorman, R.H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology, 76*, 845-855.

*Mount, M.K. (1984). Satisfaction with performance appraisal system and appraisal discussion. *Journal of Occupational Behavior, 5* (4), 271-279.

Murphy, K.R., & Cleveland, J.N. (1991). *Performance appraisal: An organizational perspective*. Boston: Allyn & Bacon.

Murphy, K.R., & Cleveland, J.N. (1995). *Understanding performance appraisal: Social, organizational, and goal-based perspectives*. Thousand Oaks: Sage.

**Nathan, B.R., Mohrman, A.M., & Milliman, J. (1991). Interpersonal relations as a context for the effects of appraisal interviews on performance and satisfaction: A longitudinal study. *Academy of Management Journal, 34* (2), 352-369.

**Nemeroff, W.F., & Wexley, K.N. (1979). An exploration of the relationships between performance feedback interview characteristics and interview outcomes as perceived by managers and subordinates. *Journal of Occupational Psychology*, 25-34.

Noe, R., Hollenbeck, J.R.H., Gerhart, B., & Wright, P.M. (2000). *Human resource management: Gaining a competitive advantage*. McGraw-Hill: Boston, MA.

*Orpen, C. (1995). Employee job performance and relations with superior as moderators of the effect of appraisal goal setting on employee work attitudes. *International Journal of Career Management, 7* (2), 3-6.

*Pangabean (2001). *Impact of perceived justice in performance appraisal on work attitudes and performance*. Unpublished Doctoral Dissertation, Nova Southeastern University.

*Payne, S.C., Horner, M.T., Boswell, W.R., Wolf, A.N., & Stine-Cheyen, K.J. (2008). *Comparison of online and traditional performance appraisal systems*. Paper Presented at the Society for Industrial-Organizational Psychology conference, San Francisco, CA.

Pettijohn, C.E., Pettijohn, L.S., & d'Amico (2001). Characteristics of performance appraisals and their impact on sales force satisfaction. *Human Resource Development Quarterly, 12* (2), 127-146.

Pettijohn, C.E., Pettijohn, L.S.,Taylor, A.J. & Keillor, B.D. (2000). Adaptive selling and sales performance: An empirical examination. *Journal of Applied Business Research, 16*, 91–111.

Pichler, S., Varma, A., & Petty, R. (2008). Rater-ratee relationships. In. A. Varma, A., P. Budhwar, & A. DeNisi (Eds.), *Performance Management Systems: A global perspective* (pp. 55-66). New York: Routledge.

**Pooyan, A., & Eberhardt, B.J. (1989). Correlates of performance appraisal satisfaction among supervisory and non-supervisor employees. *Journal of Business Research, 19*, 215-226.

**Prince, J.B. & Lawler, E.E. (1986). Does salary discussion hurt the developmental performance appraisal? *Organizational Behavior and Human Decision Processes, 37*, 357-374.

**Roberson, L., Torkel, S., Korsgaard, A., Klein, D., & Diddams, M. (1993). Self-appraisal and perceptions of the appraisal discussion: A field experiment. *Journal of Organizational Behavior, 14*, 129-142.

Roberts, K.H., & O'Reilly, C.A. (1974). Measuring organizational communication. *Journal of Applied Psychology, 59*, 321-326.

*Roberts, G.E., & Reed, T. (1996). Performance appraisal participation, goal setting and feedback: The influence of supervisory style. *Review of Public Personnel Administration,* 16, 29-59.

Rynes, S.L., Gerhart, B., & Parks, L. (2005). Personnel Psychology: Performance evaluation and pay for performance. *Annual Review of Psychology, 56*, 571-600.

*Russell, J.S. & Goode, D.L. (1988). An analysis of manager's reactions to their own performance appraisal feedback. *Journal of Applied Psychology, 73* (1), 63-67.

*Sabeen, Z., Mehboob, S.A., Jinnah, M.A. (2008). Perceived fairness of and satisfaction with employee performance appraisal and its impact on overall job satisfaction. *The Business Review, 10* (2), 185-191.

Sall, F.E., Downey, R.G. & Lahey, M.E. (1980). Rating the ratings: Assessing the psychometric quality of rating data. *Psychological Bulletin, 88* (2), 413-428.

Scandura, T.A., & Schriesheim, C.A. (1994). Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of Management Journal, 37*, 1588–1602.

*Secunda, M.D. (1984). *Employee perceptions of performance appraisal systems: Causal determinants of fairness, accuracy, and acceptability.* Unpublished doctoral dissertation, Old Dominion University.

**Silverman, S.B., & Wexley, K.N. (1984). Reaction of employees to performance appraisal interviews as a function of their participation in rating scale development. *Personnel Psychology, 37*, 703-710.

**Simmons, P.R. (1986). *Organizational effects of several appraisal approaches.* Unpublished Doctoral Dissertation, University of South Florida.

*Steensma, H., & Otto, L. (2000). Perception of performance appraisal by employees and supervisors: Self-serving bias and procedural justice. *Journal of Collective Negotiations, 29* (4), 307-319.

Suh, Y. (1992). *Instrumental and noninstrumental voice effects on perceptions of procedural justice in a performance appraisa*l. Unpublished Doctoral Dissertation, The University of Nebraska – Lincoln.

*Tang, T.L.P., & Sarsfield-Baldwin, L.J. (1996). *Distributive and procedural justice as related to satisfaction and commitment.* Paper Presented at the Annual Meeting of the Southwestern Psychological Association, Houston, TX.

**Taylor, M.S., Tracy, K.B., Renard, M.K., Harrison, J.K., & Carroll, S.J. (1995). Due process in performance appraisal: A quasi-experiment in procedural justice. *Administrative Science Quarterly, 40*, 495-523.

*Taylor, M.S., Masterson, S.S., Renard, M.K., & Tracy, K. (1998). Manager's reactions to procedurally just performance management systems. *Academy of Management Journal, 41* (5), 568-579.

**Taylor, R.L., & Zawacki, R.A. (1978). Collaborative goal setting in performance appraisal: A field experiment. *Public Personnel Management*, 62, 170.

Tharenou, P. (1995). The impact of a developmental performance appraisal program on employee perception in an Australian federal agency. *Group & Organization Management, 20*, 245-271.

Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis.* Erlbaum, Hillsdale, NJ.

Thomas, S.L.,& Bretz, R.D. (1994). Research and practice in performance appraisal: Evaluating employee performance in America's largest companies. *SAM Advanced Management Journal, 59*, 28-34.

*Thurston, P.W. (2001). *Clarifying the structure of justice using fairness perceptions of performance appraisal practices.* Unpublished Doctoral Dissertation, University at Albany, State University of New York.

Tyler, T.R. (1989). The psychology of procedural justice: a test of the group values model. *Journal of Personality and Social Psychology, 57* (5), 830–838.

*Tziner, A., Joanis, C., & Murphy, K.R. (2000). A comparison of three methods of performance appraisal with regard to goal properties, goal perception, and ratee satisfaction. *Group & Organization Management, 25* (2), 175-190.

*Tziner, A., Kopelman, R.E., & Joanis, C. (1997). Investigation of raters' and ratees' reactions to three methods of performance appraisal: BOS, BARS, and GRS. *Canadian Journal of Administrative Sciences, 14* (4), 396-404.

*Tziner, A., Kopelman, R.E., & Livneh, N (1993). Effects of performance appraisal format on perceived goal characteristics, appraisal process satisfaction, and changes in rated job performance: A field experiment. *The Journal of Psychology, 127* (3), 281-291.

Tziner, A., Murphy, K.R., Cleveland, J.N. (2005). Contextual and rater factors affecting rating behavior. *Group and Organization Behavior, 30* (1), 89-98.

U.S. Department of the Interior. Performance appraisal handbook: A guide for managers/supervisors and employees. http://www.doi.gov/hrm/guidance/370dm430hndbk.pdf . Retrieved June 22, 2009.

Vandaveer, V.V. (1982). *The dynamics of the performance feedback process in organizations*. (Doctoral Dissertation, University of Houston, 1982). Dissertation Abstracts International, 42, 4609.

Wayne, S.J., & Ferris, G.R. (1990). Influence tactics, affect, and exchange quality in supervisor-subordinate interactions: a laboratory experiment and field study. *Journal of Applied Psychology, 75*, 487-599.

Wayne, S.J., & Liden, R.C. (1995). Effects of impression management on performance ratings: a longitudinal study. *Academy of Management Journal, 38*, 232-60..

Wexley, K.N., & Klimoski, R. (1984). Performance appraisal: an update. In Rowland, K.M., Ferris, G.R. (Eds), *Research in Personnel and Human Resources Management* (Vol. 2). JAI Press, Greenwich, CT. (pp. 23-79).

*Wexley, K., Singh, J.P., & Yukl, G.A. (1973). Subordinate personality as a moderator of the effects of participation in three types of appraisal interviews. *Journal of Applied Psychology, 58* (1), 54-59.

*Williams, J.R., & Levy, P.E. (2000). Investigating some neglected criteria: The influence of organizational level and perceived system knowledge on appraisal reactions. *Journal of Business and Psychology, 14* (3), 501-513.

Wood, R.E., & Marshall, V. (2008). Accuracy and effectiveness in appraisal outcomes: The influence of self-efficacy, personal factors and organizational variables. *Human Resource Management Journal, 18* (3), 295-313.

*Wright, R.P. (2004). Mapping cognitions to better understand attitudinal and behavioral responses in appraisal research. *Journal of Organizational Behavior, 25*, 339-374.

*Wuthnow, D.P. (1992). *Procedural and interactional justice variables in performance appraisals*. Unpublished Doctoral Dissertation, University of Kansas.

Zander, A., & Gyr, J., (1955). Changing attitudes toward a merit rating system. *Personnel Psychology, 8*, (1955).

Note: * Indicates study was included in meta-analysis; ** Indicates study was also included in Cawley et al. (1998) study.