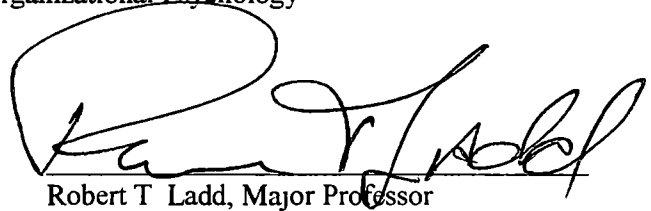


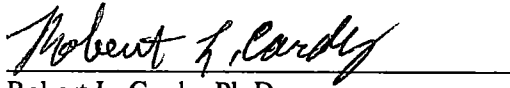
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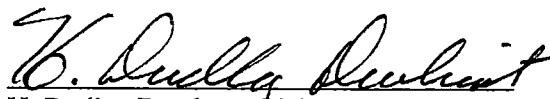


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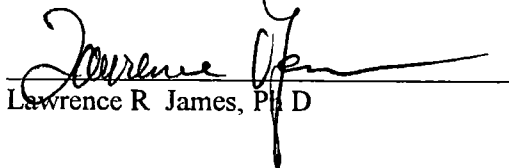
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Interim Vice Provost and
Dean of the Graduate School

AN INVESTIGATION OF FACTORS RELATING TO MANAGERIAL PERFORMANCE
IMPROVEMENT IN RESPONSE TO 360-DEGREE FEEDBACK

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Lauren Beth Baumann

August 2000

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DEDICATION

Dedicated to

My dear father, Norb,
An insatiable scholar and
a wonderful man
from whom I learn so much
I could never fill your shoes
I thank God for you

and

My beloved sisters Connie and Barb,
Your greatness inspires me
Your goodness amazes me
Your devotion humbles me
In your love I find my home
I thank God for you

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ABSTRACT

The purpose of the current study was to investigate managerial ability to self-manage a developmental response to 360-degree feedback. Numerous variables thought to affect the performance improvement realized in response to 360-degree feedback were examined. Specifically, the relationship of performance improvement to such variables as values, ability to interpret feedback, experience with feedback, and development history was examined.

Twenty-five male and twenty-five female managers from a financial services organization participated in this study. Managers received developmental 360-degree feedback in conjunction with a leadership development program they completed at least six months prior to their participation in this research. Participants identified coworkers to provide them with subsequent ratings of performance improvement on the developmental areas identified through the leadership development program. A total of 372 coworkers provided ratings of improvement, this total represented feedback from 54 bosses, 189 peers, and 129 direct reports.

Performance improvement ratings were made for two developmental areas targeted by each manager, one strength identified by each manager, and two generic distractor items identified by the principal investigator. Coworkers' ratings of improvement across these five performance dimensions were compared. Additionally, the participating managers completed a questionnaire designed to examine biographical information, value priorities, developmental and feedback histories, and ability to interpret hypothetical feedback information.

The results of this study indicated that managers were reasonably adept at navigating the steps required by a self-managed development model. Despite that, performance improvement was typically not related to the variables of interest. When significant relationships did occur, they were in the opposite direction of predictions. The results of the current study indicate that managers who realized the greatest amount of performance improvement with regard to their development goals were those who failed to establish a current development goal, who showed less of a commitment to development through the

activities they reportedly pursued, and who were less effective at identifying the causes of performance problems indicated by feedback ratings

In addition, greater improvement was perceived to have occurred in areas of pre-existing strength. Moderate ratings of improvement were given for distractor areas, and the lowest ratings of improvement were found for developmental areas. Limitations to the study, practical implications, and recommendations for future research are discussed.

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CHAPTER I

INTRODUCTION

In modern organizations, management development efforts - including the highly popular practice of 360-degree feedback - hold individual managers increasingly accountable for their own performance and career management. The current study examines the ability of managers to effect performance improvement in response to 360-degree feedback and in relation to biographical individual differences (e.g., demographic information, organizational commitment, career stage), ability to interpret feedback information and diagnose performance issues, goal-setting tendencies, and development history. The potential for self-managed development is explored relative to the feedback, goal setting, self-management, and career development literatures.

The effects of feedback on performance have been well established (see Ilgen, Fisher, & Taylor, 1979 for a review), showing strong support for its influence in directing and motivating behavior (Becker & Klimoski, 1989). The importance of feedback is heightened by the increasing complexity of jobs, especially managerial jobs which are key to a company's survival. Because of this, feedback plays a central role in the performance management and management development efforts of modern organizations (London, 1997).

The need to provide accurate and thorough feedback for incumbents in complex managerial roles has led to the inclusion of raters other than the supervisor (London & Smither, 1995; Brutus, Fleenor, & London, 1997). Because of this, multisource feedback has become increasingly popular among competitive organizations (London & Beatty, 1993; London & Smither, 1995; Antonioni, 1996; Church & Bracken, 1997). Also called 360-degree feedback, multisource feedback involves the collection of performance feedback from those coworkers (i.e., boss, peers, direct reports, customers) whose relationships are important to a manager's success (London & Smither, 1995). The use of 360-degree feedback programs as a competitive tool has become widespread in organizations today (Antonioni, 1996; Tornow & London, 1998), even to the point that some companies are believed to implement such programs primarily to secure the perception of legitimacy among competitors (Waldman, Atwater, & Antonioni,

1998) Most typically, 360-degree feedback programs serve a management development focus (Waldman, Atwater & Antonioni, 1998), although their use for administrative decisions is increasing (Church & Bracken, 1997)

There is a growing belief that individuals must take control over their own development and careers (Margenison, 1988, London, 1997, Dalton, 1998) As such, it is not uncommon for organizations to hold managers solely or primarily accountable for their own development (Hollenbeck, 1997) which includes using their 360-degree feedback results to effect performance improvement (London, 1995) This tendency fits well with the protean career paradigm (Hall & Mirvis, 1998, Hall & Moss, 1998) that guides modern thinking about responsibility for career development Although the protean or self-managed career concept is logically based on the hyper-competitive business environment, which precludes career or employment contracts, the implications for self-managed development present significant challenges for individual managers Absolving themselves of responsibility for career development, many companies stop short of providing the support processes needed to ensure that the 360-degree feedback program fits with the organizational culture and mission and can be used by managers to effect improvement in performance (London & Beatty, 1993, Antonioni, 1996, Funderburg & Levy, 1997)

Self-managing the development process requires that managers be able to accurately interpret their feedback, correctly identify the cause of performance deficiencies, set performance improvement goals for complex managerial competencies, formulate effective strategies to attain their goals, and monitor and reward their progress in such a way as to sustain their own motivation over time (Dechant, 1990) Although research suggests that feedback combined with goal setting is typically successful in improving performance (Locke & Latham, 1994), studies have shown that A) goal setting effects are typically stronger in lab than field settings (Tubbs, 1985), B) numerous factors inherent within performance diagnosis and strategy formulation tasks can cripple the effectiveness of self-managed development efforts (Davis, 1990, Argyris, 1991, Ashford, 1989), C) self-management may not be a naturally occurring process (Brief & Hollenbeck, 1985, Ashford, 1989), and D) managers may not tend to reward their own efforts (Brief & Hollenbeck, 1985) Such factors threaten the return on investment that organizations are likely to see relative to individual performance

Moreover, under the self-managed development model, there are potential threats to the return on investment realized at the organization level as well. As organizations defer responsibility for development to the individual manager, managers may respond, in turn, by adopting a free agent mentality. When asked to target development areas in response to 360-degree feedback, managers may choose to pursue career priorities over competencies that are most critical for success in the current role or within the organization. The current research seeks to examine these issues.

CHAPTER II

LITERATURE REVIEW

The current study draws heavily from two current organizational practices and their respective literatures. At the forefront is the flourishing practice called 360-degree feedback, with its corresponding research into the reliability, validity, and agreement of coworker ratings and the effects on subsequent performance. A supporting theme stems from the current understanding of development and career initiatives as self-managed, full responsibility for which rests with the individual employee. The current research draws upon the feedback, goal setting, career stage, and job and organizational commitment literatures to consider and explore possible implications for the intersection of 360-degree feedback and self-managed development.

Protean Career

Forming the context or backdrop for the current research is the modern way of conceptualizing what was once known as a "career contract." Where once was the expectation that the employing organization would paternalistically manage an individual's career development, there now is a growing sense of the "protean career" concept. The recent zeitgeist shift is summarized by Hall and Moss (1998) "The message is relentless: the deal has changed. The career contract is dead" (p. 22), and by Bedeian, Pissolatto, Long, and Griffith (1991) "The ideal condition of an individual selecting a career at an early age and remaining in it (or even the same organization) until retirement is becoming more the exception than the rule" (p. 163-164).

This new thinking on employment contracts contends that, in this hyper-competitive business environment in which traditional career or employment contracts have long since been abandoned, employees can no longer rely on career-long employment with the current organization (Carson & Bedeian, 1994). As such, responsibility for development rests with the employee, not the employer, and the locus of employee commitment has shifted from the organization to the career. As expressed by Carson and Bedeian (1994), "To cope with the uncertainty, better educated employees have become increasingly committed to their own careers" (p. 238). The shift has become clear: whereas the old contract provided

for "lifetime employment" and provisions for career development the protean career represents a contract with the self and one's chosen work. The old contract was with the organization the new contract is with the self (Hall & Mirvis, 1995, Hall & Moss, 1998)

More specifically, the protean career is characterized by the following: the career is managed by the individual, not the employing organization, development is continuous and self-directed and the definition of success has shifted from job security to employability and from "work self" to "whole self" (Hall & Moss, 1998, p. 26). The protean career severs the tie between "career" and "organization" (Hall & Mirvis, 1995), being far more flexible and conceptualized not as a linear progression but as "peaks and valleys, left turns, moves from one line of work to another" (Hall & Mirvis, 1995, p. 272).

Although this new responsibility for navigating the career course may prove liberating and advantageous for the individual employee, it appears to also have exerted a liberating influence on organizations. Many organizations are interpreting the new paradigm to imply that they are now accountable only for providing challenging work opportunities and occasional resources to support employee development, individuals are accountable for their own development and marketability (Fleenor & Prince, 1997; Dalton, 1998; Hall & Moss, 1998; Hollenbeck, 1997). The implications of such a view may involve far-reaching and unanticipated consequences with regard to development, especially as it pertains to the developmental priorities managers establish in response to 360-degree feedback.

In the current practice of 360-degree feedback, many organizations espousing the protean career model assert that individual managers must self-manage or self-navigate their own development in response to their feedback (London, 1997). Many organizations expect the individual manager to figure out what to do with the results (London, Smither, & Adsit, 1997). A self-managed developmental response to 360-degree feedback requires that the individual accurately interpret copious amounts of feedback data, generate strategies to improve performance, set effective goals for performance improvement, and sustain one's own motivation through monitoring and rewards. The ultimate goal engendered by these expectations is that the individual manager self-regulate these responsibilities in such a way that his/her individual 360-degree feedback results in performance improvement. One disconcerting extension of this manner of thinking has been noted by scholars: many of the 360-degree feedback practices implemented

today are not even designed to help individuals make intended improvements (London, Smither, & Adsit, 1997)

This new contract in turn, engenders in employees an organizational version of the 'free agent' mentality that is prevalent in professional sports (Hall & Moss, 1998). In sports, a free agent is 'an athlete no longer under contract to a team and therefore able to negotiate with other teams' (Smith, Piland, & Discenza, 1990, p. 307). The organizational counterpart is an employee who is unwilling to make a commitment to the organization or its mission, goals, or strategies (Smith, Piland, & Discenza, 1990).

Central to the free agent mentality is the conviction that the individual can achieve his/her goals (both personal and professional) in any number of organizations. Under this model, organizational experiences are relatively interchangeable, such that commitment to any one organization is unlikely and exiting any one organization is relatively free of penalty (Smith, Piland, & Discenza, 1990). To free agents, the importance of self outweighs organizational commitment, in short, their primary interest and loyalty are with the self, and their motivation is reserved for the fulfillment of self-set personal and professional goals.

Integrating these issues with the current practice of 360-degree feedback as a self-managed development tool gives rise to the question of where a manager's loyalties will lie in the setting of development goals. Consider that the possible realm of development goals primarily include those which are essential to the manager's success in A) the current job, B) the current organization, or C) the current career. One might speculate that a manager espousing the protean career or free agent philosophy will opt to focus development on areas that are most relevant to his/her career success, as opposed to areas that are more likely to enhance success within the current job or organization. To the extent that the protean career model leads managers to place higher priority on career-focused goals than job-related goals or goals pertaining to core organizational values, the sponsoring organization may realize diminished return on their investment in 360-degree feedback, especially if the newly marketable managers opt to take their skills elsewhere.

Before examining the research on the role of 360-degree feedback in management development, let us first consider the influences of organizational commitment and self-management as they factor into the central premise

Organizational Commitment

Organizational commitment typically reflects an identification with or psychological tie to the employing corporation and/or the willingness to exert effort in support of the corporation's goals (see Mowday, Steers, & Porter 1979, for a review). Previous research has suggested and found organizational commitment to vary across career stages (see Morrow & McElroy, 1987 for a review, Jans, 1989), with the highest levels of organizational commitment typically reported by employees in the late career stage. Scholars have posited that this finding is to be expected, particularly when career stage is operationalized by organizational tenure; those with decreased organizational commitment are more likely to leave, such that those who remain at late career are typically those who have held higher levels of organizational commitment (Allen & Meyer, 1993). Alternatively, employees with greater tenure are more likely to hold the more attractive or executive level positions within a company (Allen & Meyer, 1993) thus contributing to higher levels of organizational commitment.

Not surprisingly, in a study of military officers, Jans (1989) found that age and length of service were positively related to organizational commitment. Quite simply, older officers were more committed to the military than their younger counterparts.

Similarly, in a study conducted with employees of a university library and with clerical, supervisory, and managerial employees of a general hospital, Allen and Meyer (1993) found that both age and organizational tenure were related to organizational commitment. Specifically, older and more tenured employees reported higher levels of affective and normative commitment to the organization, reflecting desire to remain with the organization and feelings of obligation to the organization, respectively. Interestingly, these authors also found that recognition of the costs associated with leaving the organization did not vary significantly across career stages.

The results of Morrow and McElroy's (1987) research using 2200 workers from the Department of Transportation "clearly point toward workers in the last career stage as being the most committed" (p

343) This effect held true despite clear differences in the operationalization of career stages based on age, positional tenure, and organizational tenure

In a study of nurses at two hospitals, Bedeian, Pizzolatto, Long, and Griffeth (1991) found that intention to remain with the current organization was lower for younger respondents in the early career stage than for older employees in the middle- and late-career stages. Their study also showed that both turnover and career commitment declined as organizational tenure increased, suggesting that employees in later career stages are more likely to remain with the organization but are less committed to their careers.

In a field study spanning numerous occupational groups, Carson and Bedeian (1994) found that organizational tenure was significantly negatively correlated with career planning. Employees with greater tenure within an organization showed less of a propensity to form goals or pursue personal development plans relating to their chosen lines of work.

In a study of university staff, McEnrue (1989) found that employees who reported higher levels of commitment to the organization also expressed a greater willingness to engage in self-managed career development activities. Moreover, although older and younger employees expressed equivocal interests in advancement, older employees expressed diminished expectations for career advancement opportunities - along with a corresponding lack of interest in self-managed career development. McEnrue (1989) speculated that older employees may be less willing to invest in self-development because they have a shorter horizon of employment during which to reap the benefits of such an investment. Based on the results of his study, McEnrue (1989) concluded that "the full burden of these efforts should not fall solely on employees themselves without coordinated development action from an organization" (p. 66), and then added, "Otherwise a significant portion of employees, owing to their level of commitment or perception of rewards, will not demonstrate self-development to enhance their skills throughout their career" (p. 67).

Taken together, these findings may suggest that the most organizationally committed managers (i.e., those who are older or are in late career) may be the least likely to invest in self-managed development efforts. At a minimum, it might be expected that such managers would be unlikely to engage in development activities focused on enhancing job- or career-success, however, their high levels of

organizational commitment may lead them to engage in development activities that reflect the organization's values

Returning to the central tenets of the free agent philosophy, it is emphasized that such a career "contract" is at odds with the notion of organizational commitment. The protean career philosophy holds the self and career as the focus of commitment, rather than the organization (Hall & Moss, 1998). Insofar as the construct of and related scales measuring job involvement have been shown to be empirically distinguishable from the construct and related scales measuring organizational commitment (Mowday, Steers, & Porter, 1979; Kanungo, 1982) it is possible to examine managers' prioritization of the two. Whereas organizational commitment reflects an individual's acceptance of and efforts to support an organization's goals (Mowday, Steers, & Porter, 1979), job involvement pertains to "a cognitive immersion in work activities primarily because they provide intrinsic satisfaction" (Somers, 1987). In addition, career commitment has been found to be operationally distinct from both organizational commitment and job involvement (Blau, 1985). As such, the inclusion of measures of the job involvement, organizational commitment, and career commitment constructs permits exploration of whether managers' selection of developmental priorities and efforts are in keeping with their strongest self-reported loyalties.

- | | |
|--------------|---|
| Hypothesis 1 | Managers reporting higher levels of career commitment than job involvement or organizational commitment will report the greatest amount of development activity |
| Hypothesis 2 | Managers reporting higher levels of career commitment will be rated as attaining greater performance improvement in their development areas |

The purpose of reviewing these literatures is to elucidate the complexity of issues which are likely to influence the self-managed developmental responses managers exhibit in relation to their 360-degree feedback. The following examination of research and issues pertaining to the use of the popular practice of 360-degree feedback will be extended to include consideration of the additional complications conferred by expectations that the process can be self-managed.

Widespread Use of 360-Degree Feedback

The effects of feedback on performance have been extensively examined and well established (see Ilgen, Fisher, & Taylor, 1979 for a review) showing strong support for its influence in directing and motivating behavior (Becker & Klimoski, 1989). An essential component of performance management systems (London, 1997) the importance of feedback is heightened by the increasing complexity of jobs, especially managerial jobs. Because of this, feedback has assumed a principal role in the modern organizations' management development efforts, which represent a multi-billion dollar investment undertaken by 90% of North American firms (Baldwin & Padgett, 1994, Latham & Seijts, 1998). Such an investment is justified by the belief that the quality and performance of a company's managers largely determine its survival and success (Wexley & Baldwin, 1986).

Multisource feedback is one type of feedback that has become increasingly popular among competitive organizations (London & Beatty, 1993, London & Smither, 1995, Antonioni, 1996). It is the process by which an individual, commonly a manager, receives performance-related feedback from two or more rating sources (Dalessio, 1998), usually coworkers or customers, who have the greatest opportunity to observe that individual's typical work behaviors. This process is commonly called 360-degree feedback because its objective is to collect performance information for an individual from all directions – that is, from coworkers at varying levels within an organization (i.e., supervisor, peers, and direct reports), and in many cases, from important constituents external to the organization (i.e., customers) (Tornow, 1993, London & Smither, 1995). In addition to obtaining performance ratings from coworkers, 360-degree feedback typically requires that the individual whose performance is being assessed also provide ratings of his/her own performance (i.e., self-ratings).

It has been reported that organizations today are employing 360-degree feedback programs for purposes of management and leadership development (Dalton, 1998), performance appraisal - replacing single source, top-down performance assessments (Fleenor & Prince, 1997), measuring and facilitating changes in culture (London & Smither, 1995, Church & Bracken, 1997), succession planning (Church & Bracken, 1997), and organizational change initiatives (Church & Bracken, 1997). Most typically, however,

organizations are using 360-degree feedback to support their leadership and management development efforts (Waldman, Atwater, & Antonioni, 1998)

Although the current study is concerned with the use of 360-degree feedback as a management development tool, it is important to note that an increasing number of companies are extending its use to a more formal role within their performance management systems as a substitute for traditional methods of performance appraisal. This issue has scholars divided, some advocate the use of 360-degree feedback exclusively for developmental purposes (Farh, Cannella, & Bedeian, 1991; Dalton, 1996; Dalton, 1997; Pollman, 1997), others promote the added advantages of application for administrative purposes (i.e., performance appraisal) (Bracken, 1997; Jako, 1997; London, Smither, & Adsit, 1997), and still others acknowledge the validity of both sides of the debate (London & Beatty, 1993; Fleenor & Prince, 1997; McCauley, 1997; Waldman, Atwater, & Antonioni, 1998). Most would agree, however, that the practice of 360-degree feedback is rapidly accelerating in the absence of sufficient research and clear evidence regarding what constitutes effective implementation (Hazucha, Hezlett, & Schneider, 1993; London & Smither, 1995; Waldman, Atwater, & Antonioni, 1998).

Prior to the 1980's, 360-degree feedback was rarely used to assess individual performance (Fleenor & Prince, 1997), but in recent years, there has been a remarkable surge in its implementation in American organizations (London & Smither, 1995; Antonioni, 1996). Where it might have been considered a progressive assessment tool a decade ago, 360-degree feedback is essentially a standard operating procedure in modern organizations (Church & Bracken, 1997). Funderburg and Levy (1997) may well have summarized the commoner's perception of the popular practice with their statement, "360-degree appraisal systems as a performance tool may be the answer for performance management in the 1990s" (p. 230).

Personnel Decisions, Inc. estimated that companies in the United States spent \$152 million on multirater development in 1992 (Romano, 1993), and the adoption of 360-degree feedback has increased exponentially since then. Waldman, Atwater, and Antonioni (1998) noted that approximately 12% of American organizations are using 360-degree feedback programs. Similarly, Tornow and London (1998) reported that, "At present it would be hard to find a Fortune 1000 company in the United States that hasn't

tried 360-degree feedback somewhere in the organization at least once, and many are using it regularly” (p 1) Yammarino and Atwater (1997) reached a similar conclusion, reporting that an estimated 10 to 15% of organizations are using upward appraisal or 360-degree feedback for management development, and are spending hundreds of millions of dollars each year on these feedback interventions

It is important to note that companies are feverishly pursuing and investing in the practice of 360-degree feedback despite the paucity of information regarding its impact on managers or organizations (Hazucha, Hezlett, & Schneider, 1993, London & Smither, 1995) Scientists and practitioners have yet to answer the fundamental question of “how or even whether 360 feedback really works” (Waldman, Atwater, & Antonioni, 1998, p 89)

In addition, it is not unusual for such programs to be implemented without clear definition of scope or mission (Antonioni, 1996), strategic alignment or consideration for how they will contribute to the organization’s competitive advantage (London & Beatty, 1993), or an assessment of organizational readiness or cultural fit (Funderburg & Levy, 1997) There is a growing awareness of the prevalence of such tendencies, which might be termed “systemic neglect”, and of the likely outcomes they will induce Antonioni (1996) has asserted that the probable result of such negligent approaches will be that “appraisers will be disappointed and disillusioned, appraisees will feel frustrated, and ultimately 360-degree appraisals will fall into disrepute” (p 24)

Meanwhile, there continue to be numerous factors propelling the widespread adoption of 360-degree feedback practices in organizations today, all of which are rooted in heightening a firm’s competitive advantage Primary among these factors are the increasingly complex and multidimensional nature of managerial roles, the fit with principles and practices of Total Quality Management, the efficiency and cost-effectiveness of 360-degree feedback when compared with traditional methods of appraisal, and the imitation of competitors

Multidimensional Roles of Managers

There is little debate that managerial roles have become increasingly fluid, multidimensional, and complex as increasingly boundaryless organizations rise to meet the rapidly escalating challenges of technological advancement and global competition There are a number of issues related to the complexity

of managerial roles that are well served by the use of multiple sources of feedback for management development

First, as a result of the increasingly multidimensional nature of managerial roles, it is no longer reasonable to expect that a manager's supervisor can thoroughly assess the full scope of that manager's performance (London 1997). Many times, a supervisor lacks opportunity to directly observe the behavior or work-related outcomes of the manager being rated (Cardy & Dobbins 1994) or has access to only an unrepresentative sample of the manager's behavior (Mount 1984). Compounding this issue is the fact that objective measures of performance are increasingly unavailable for most jobs (Murphy & Cleveland 1995). Given these constraints, a thorough assessment of performance for purposes of development requires the contribution of insights by coworkers (i.e., supervisor, peers, and direct reports) who have sufficient and oftentimes unique opportunities to observe important managerial behaviors.

Second, as Cardy & Dobbins (1994) pointed out, jobs vary in how much the outcomes are determined by system versus person factors. They note that performance in some positions (e.g., machine operator) is primarily a function of system factors whereas performance in less proscribed roles (e.g., writer) is attributable primarily to the influence of the person holding that position. Extending this concept, it is possible that because of their complexity and broad scope, managerial roles may be more highly susceptible to "true" variance in rater perceptions and expectations (London, 1995), in contrast, roles with clearly defined scopes and responsibilities may be more likely to result in uniform performance expectations and then greater consensus or agreement across raters. Conway and Huffcutt's (1997) meta-analysis provided support for this notion; they found that supervisor and peer ratings made for lower complexity jobs (e.g., semi-skilled or unskilled positions) were marked by higher reliabilities (.60) than more highly complex jobs (e.g., managerial and technical positions, .48). In addition, correlations across self-, peer-, and supervisor ratings were lower for managerial positions than for positions of lower complexity. Recognizing this, the necessary implication for managerial roles is that affected constituencies (i.e., supervisor, peers, direct reports, customers) may hold equally valid but unique or even conflicting perspectives and expectations (London & Beatty, 1993, London & Smither, 1995, Brutus, Fleenor, & London, 1997, London, 1997).

Relatedly, it has been noted that differences may exist across constituencies in such areas as job knowledge, motivation, and information processing (Cardy & Dobbins, 1994) - further contributing to differences in perceptions. Similarly, rater groups may have different exchange priorities - they may focus on different behaviors depending on the nature of their relationships and what they benefit from the most in their transactions with the manager (Salam, Cox, & Sims, 1997). For example, direct reports may place a higher premium on their manager's ability to provide challenging opportunities or exposure to powerful others, whereas peers may place a higher premium on the manager's tendencies toward sharing important information or siding together on political issues. Ratings from coworkers can clarify which behaviors are particularly important or relevant to the various constituencies with whom a manager frequently interacts (Wohlers & London, 1989).

Taken from another perspective, outside of the issue of coworkers' *perceptions* and *expectations*, the nature of the managerial role is such that a manager's actual *behavior* can vary across constituencies (Greguras & Robie, 1998). This provides yet another reason that perceptions of a manager's performance can vary legitimately and considerably among coworkers who have differing relationships with manager (London & Beatty, 1993, Brutus, Fleenor, & London, 1997, London, 1997, Tornow & London, 1998). If a manager is exhibiting unique behaviors at times with each constituency, the natural consequence is that any one rater group may have an opportunity to observe certain of the manager's behaviors that aren't exhibited in the presence of other rater groups (Fleenor & Prince, 1997). As an example, peers are unlikely to be familiar with a manager's delegation skills, whereas direct reports may not be exposed to their manager's negotiation skills or political savvy, as such, soliciting feedback from both rater sources contributes to a more complete understanding of the target manager's performance.

Finally, to be comprehensive, an assessment of managerial effectiveness must include consideration of leadership behaviors (London & Beatty, 1993, Murphy & Cleveland, 1995). The very essence of management is the achievement of objectives through direct reports, thus carries the inherent implication that related behaviors may be best or solely assessed by direct reports (Cardy & Dobbins, 1994). As argued by Bernardin (1986), "Given that virtually every definition of management has to do with achieving results through *people*, subordinate appraisals offer an opportunity to gather data from that organizational source

most related to the manager's functions" (p. 423). Whereas a supervisor's feedback may reflect the performance of the manager's work unit, overall, feedback from direct reports may be more likely to focus on leadership behaviors and decision making (London & Beatty, 1993). Thus, it may well be the case that managerial behaviors related to leadership dimensions, in particular, are best assessed by those toward whom the behaviors are directed—the target manager's direct reports (Bernardin, 1986; Bernardin & Beatty, 1987). Opportunities to observe such behavior will be far greater with direct reports, thereby suggesting that they may have unique insights to confer through their feedback.

Fit with Total Quality Management

It should be readily apparent that 360-degree feedback fits well with the Total Quality Management (TQM) tenets and emphases on continuous improvement, customer focus, and employee participation. Relatedly, Bernardin (1986) noted that the demographics of the workforce are increasingly such that employees are better educated and expect to have a voice in important decisions. Whereas TQM is incongruous with traditional human resource management practices (Cardy, 1998), quality practices are well served by a feedback system that incorporates the input of customers both internal and external to the organization (London & Beatty, 1993; Nowack, 1993).

Alternative to Traditional Performance Appraisal Methods

An additional factor fueling the popularity of 360-degree feedback programs lies in the fact that it constitutes a more efficient and cost-effective alternative to traditional assessment methods (Dalessio, 1998), including assessment centers (Bernardin & Beatty, 1987; McEvoy & Beatty, 1989). Long-standing dissatisfaction with traditional top-down performance appraisal is well documented (Smither, 1998), and likely provides an impetus for the current pursuit of 360-degree feedback as an alternate solution.

It should be noted that one marked deficiency of traditional performance appraisal methods applies equally to 360-degree feedback. Like traditional performance appraisal (Dobbins, Cardy, Fecteau, & Miller, 1993), 360-degree feedback typically fails to include consideration of situational constraints when assessing individual performance. Research has shown that raters fail to recognize the role of situational or system constraints on individual performance (Carson, Cardy, & Dobbins, 1991). As such, in the absence of consideration of these factors, the resultant feedback is made inaccurate in that performance deficiencies

are over-attributed to individual factors and under-attributed to system factors. This constitutes an area in which 360-degree feedback systems still conflict with the principles and practices of TQM, as well as coming up short of providing a complete and accurate assessment of performance.

Imitation of Competitors

Of primary interest to the present study, experiential observations have fueled the suspicion that many organizations are implementing 360-degree feedback for the simple reason of imitation. Lees (1992) suggested that, primary among the reasons that organizations adopt particular management development efforts is the simple idea of "environmental legitimacy." Summarizing the argument advanced by environmental determinists, Lees explicated that much of organizational structure exists not so much to influence performance as to "signal conformity with environmental myths and to confer legitimacy on the organization from external constituencies" (p. 99). Lees went on to explain that failure to conform – or at least, to convey the *intent* to conform – runs the risk of forfeiting legitimacy in the eyes of the competition. Similarly, with regard to 360-degree feedback, Waldman, Atwater, and Antonioni (1998) suggest that some organizations facing uncertain situations see the adoption of 360-degree feedback as a way to secure a sense of external legitimacy by mimicking the practices of their principal competitors. Waldman et al. (1998) noted that a similar phenomenon occurred with TQM, whereby later adopters were not so much concerned with the specifics of the implementation or whether they were linked to actual performance outcomes as they were with achieving a sense of external legitimacy through that implementation.

It is possible, if not probable, that organizations fitting this profile are more prone to adopt 360-degree feedback practices that are characterized by "systemic neglect"; they adopt the practice to signal an intent to conform and thereby secure external legitimacy, yet they lack real commitment to the potential impact such a practice can have on managerial and organizational performance. Coupling the implications of overzealous – and at times, negligent and/or superficially motivated – adoptions of 360-degree feedback practices with the protean career view of individual responsibility for development raises questions about the reasonable expectation for performance improvement within such a system. What might be reasonably expected of managers' self-navigated efforts to improve performance, when placed within the context of an unsupportive system that may have been implemented because "it's the thing to do"?

Expectations of Organizations Implementing 360-Degree Feedback

The primary objective of most 360-degree feedback programs is individual performance improvement (Tornow, 1993, Antonioni, 1996, Dalton, 1998). Regardless of an organization's main motivation for turning to 360-degree feedback, implementation carries an inherent expectation that multirater feedback will prompt behavioral change or otherwise lead to change or improvement in performance in the managers who receive that information (London & Beatty, 1993, Smither, London, Vasilopoulos, Millsap & Salvemini, 1995, Church & Bracken, 1997, London, Smither, & Adsit, 1997, Waldman, Atwater, & Antonioni, 1998, Harvey & Cartagena, 1999). In large part, this expectation stems from the belief that information from multiple perspectives will reveal performance deficiencies of which the manager was previously unaware (Waldman, Atwater, & Antonioni, 1998).

As noted by London, Wohlers, and Gallagher (1990), "Managers seem to have little knowledge of their own managerial strengths and weaknesses" (p. 17). One reason for this quickly becomes clear insofar as most organizational environments are feedback poor, managers are typically unlikely to encounter sufficient feedback to form an accurate self-perception (Waldman, Atwater, & Antonioni, 1998). In such instances, managers' 360-degree feedback will provide extensive and possibly surprising evaluations from coworkers, some of which will presumably motivate the pursuit of behavioral change.

Control Theory

In accordance with the tenets of Control theory, it is reasonable to believe that, in reaction to feedback, individuals will be motivated to reduce discrepancies between their actual performance and some explicit goal or standard, with greater discrepancies giving rise to heightened motivation. Applied to 360-degree feedback, Control theory would support the contention that individualized feedback clarifies for managers the feedback-goal discrepancies in performance and allows managers to appropriately focus their attention toward the reduction of gaps (Smither, London, Vasilopoulos, Millsap, & Salvemini, 1995). An extrapolation might allow that individuals will be motivated to reduce discrepancies between their own perceptions (as evinced by self-ratings, perhaps representative of the standard or goal) of performance and the perceptions held by relevant coworkers (as reflected in others' ratings, hypothetically representative of

actual performance) In short, there appears to be a general consensus around the notion that specific, individualized feedback should lead to the reduction in discrepancies, or the improvement of performance

However, recent scholarly examinations of the effects of feedback have led some to suggest that its impact may not always be to improve performance With regard to the application of Control theory, Locke (1991) cautions, "Human beings do not automatically try to remove all discrepancies between desired and actual outcomes Human beings are conceptual not mechanical systems" (p 12) This insight tempers the assumption that discrepant feedback will necessarily result in the motivation to reduce the performance gap

Evidence Against the Assumption that Feedback Effects Improvement

Other research adds further evidence against the assumption that feedback necessarily leads to improved performance For example, the study conducted by Smither, London, Vasilopoulos, Millsap, and Salvemini (1995) showed no evidence of improvement for managers whose coworker ratings were low but whose self-ratings were also low Looking to self-consistency theory, the authors explained that, it sometimes occurs that managers may be satisfied with feedback that is consistent with their self-perceptions, even if the self- and other-perceptions are unfavorable

On a different note, a recent meta-analysis of 607 effect sizes relating to feedback interventions was conducted by Kluger and DeNisi (1996), their results showed that more than a third of the feedback interventions examined actually resulted in "reduced performance" (p 275), or had debilitating effects on performance Relatedly, based on a qualitative study of managers' use of 360-degree feedback, Callender (1996) cautioned that, "Like other feedback, 360-degree feedback can have powerful effects on the recipient and can do harm if done badly" (p 19) Callender (1996) also noted, "In a feedback poor environment, using 360-degree feedback may be a deluge in a desert" (p 138) Highlighting the risks associated with this dilemma, London (1995) pointed out, "The more detailed the (feedback) report, the more the interpretation required, and the greater the likelihood that the managers' biases will affect interpretation" (p 221)

Taken together, these concerns provide evidence that feedback practices do not always effect positive results, this second look at the extant literature suggests that the impact and effectiveness of such

interventions are not automatic. The assumption that multirater feedback will necessarily induce performance improvement may be especially likely to be violated when companies implement such practices while ignoring strategic alignment, systemic perspective, and available development tools that appropriately support managers' improvement goals.

In addition, seminal research is beginning to unveil other requisite considerations in the design and implementation of 360-degree feedback systems. For example, based on the results of their finding that individuals who perceived the feedback environment as unfavorable were less interested in using 360-degree feedback, Funderburg & Levy (1997) emphasized the importance of assessing the organizational environment for fit or readiness prior to introducing a multirater feedback system. Moreover, their research also revealed that employees whose managers were characterized by a participative style saw 360-degree feedback to be of little utility, whereas those with autocratic managers found that the feedback filled key informational voids. Research by Brutus, Fleenor, & London (1997) showed that self, supervisor, peer, and direct report ratings varied significantly by organization type, leading them to conclude that, "researchers and practitioners should not automatically assume that multisource feedback works the same way in all types of organizations" (p. 17). These early works should, at a minimum, give rise to the disquieting recognition that performance improvement will not necessarily follow as a consequence of 360-degree feedback program implementation, and that conscious effort and exacting measures are needed to ensure that the intended result does in fact occur within the organizational context within which such programs are embedded.

To recap, organizations introducing 360-degree feedback assume that performance improvement will result; moreover, the protean career perspective often leads to the expectation that managers should self-manage the development process. These expectations are weighty, and they may yield unpredictable results when the organization institutes its 360-degree feedback program without regard for basic systemic considerations or the ability of managers to self-navigate the process. Dunnette (1993) posed the question of what methodological hazards threaten the proper use and potential impact of 360-degree feedback; it could be suggested that the current state of practice may prove to be among the most serious of hazards.

With these high expectations, possibly faulty assumptions, and incomplete implementation practices in mind, two key questions are A) whether the inclusion of multiple raters in 360-degree feedback actually leads to improved performance and, B) what might result from a 360-based, self-managed development process. The first question has garnered some research evidence and the second question is addressed in the present study.

Inclusion of Feedback from Multiple Raters

The inclusion of feedback from raters in a performance management context is said to yield numerous advantages over a top-down rating process.

First, the inclusion of multiple rating sources typically results in feedback information that the manager would not otherwise have received (Bernardin, 1986). Kane and Lawler (1978) stated that additional sources of feedback information are valuable to the extent that they "contribute information that is psychometrically superior to or different from that which existing sources contribute" (p. 555). Many scholars do believe that the added input from coworkers constitutes unique (i.e., psychometrically distinctive) and valuable information that can deepen a manager's self-insight and strengthen his or her efforts toward development (Mount, 1984; London & Beatty, 1993; Tornow, 1993). For example, Tornow (1993) asserted that, from the perspective of the practitioner, "There are as many realities as there are observers and that there is value in understanding these multiple realities/perspectives" (p. 228). For purposes of management development, the inclusion of multiple rater groups serves the important purpose of enabling managers to perceive their performance as others do (Atwater, Ostroff, Yammarino, & Fleenor, 1998), to the extent that the manager's role requires the accomplishment of objectives through relationships with coworkers, this benefit is imperative. This benefit is said to take on increased importance in light of self-raters' leniency bias (Harris & Schaubroeck, 1988), the self-lenency tendency is likely to result in "blindspots" or discrepancies between self- and other-ratings that can impede a manager's effectiveness (Atwater, Ostroff, Yammarino, & Fleenor, 1998).

Second, from a psychometric perspective, it is often noted that performance assessment systems that incorporate input from greater than one source reflect more reliable and valid, as well as potentially more accurate, feedback (Bernardin, 1986; Bernardin & Beatty, 1987; Cardy & Dobbins, 1994). Importantly,

this fortifies the defense of the system if met with legal challenge (see Malos, 1998, for a review, Bernardin & Beatty, 1987 – secondary cite, Bernardin & Klatt, 1985 – secondary cite)

Third, the inclusion of coworkers in the feedback process has been reported to contribute to increased satisfaction with and acceptance of the process on the part of managers being assessed (Harris & Schaubroeck, 1989). In addition, it has been said to enhance employees' feelings of participation and involvement in organizational decision making (Bernardin, 1986).

In sum, there is solid rationale promoting the addition of multiple rating groups when providing performance feedback to managers for purposes of development. The movement to include non-traditional sources of ratings has prompted research into the accuracy and value of ratings made by various coworker constituencies.

Research on Ratings Made by Coworkers

Given that non-traditional sources of raters are being included in feedback systems, it becomes important to determine whether the plausible theoretical advantages are borne out in reality. Whereas much was known from the extensive research on supervisor ratings of performance, little was known about the psychometric qualities of ratings made by coworkers when 360-degree feedback was first used to assess individual performance. Like the conclusions drawn regarding supervisory ratings, a review of the extant research regarding self-, upward, and peer appraisal revealed strengths and deficiencies with each. Moreover, the evidence clearly indicates the prevalence of a lack of convergence (a) between self- and other ratings, (b) across peer direct report, and supervisor ratings, (c) within the ratings of each rater group (i.e., peer or direct report), to varying extents. Despite these characteristics, the research supports the value of adding coworker feedback to supervisor feedback in providing meaningful performance information to managers for use in their development.

Supervisor Ratings

The inclusion of coworker input in 360-degree feedback does not challenge the use of supervisor ratings, but rather, rivals only their use as the *sole* source of feedback information. Unlike peer raters, supervisors do not stand to profit from distortion of performance ratings and therefore they can be more honest in rating performance (Cardy & Dobbins, 1994). Although research suggests that supervisory

ratings are also prone to halo and leniency errors (see Cardy & Dobbins 1994 – secondary source), there is little dispute regarding the value of the supervisor's perspective for performance-related feedback

Most people, supervisors included, dislike giving feedback (Antonioni, 1994) and are likely to avoid the task if possible. One area where 360-degree feedback improves upon traditional, top-down performance appraisal is in taking the focus off of the supervisor as the sole evaluator and instead allowing the supervisor to assume more of a coaching role in helping the target manager make sense of the input from multiple sources. This approach is more conducive to the manager's development than the more antagonistic roles set up under the traditional performance appraisal methods.

Self Ratings

Historically, the primary deterrent of the use of self-ratings is the well-documented tendency toward leniency (Cardy & Dobbins, 1994, Murphy & Cleveland, 1995, London, 1997, Atwater, 1998). Research has consistently found average self-ratings to be higher than the average ratings provided by coworkers (Harris & Schaubroeck, 1988, Smither, London, Vasilopoulos, Reilly, Millsap, & Salvemini, 1995, Fleenor, McCauley & Brutus, 1996, Furnham & Stringfield, 1998). A meta-analysis conducted by Harris and Schaubroeck (1988) found that self-ratings averaged more than a half-standard deviation higher than supervisor ratings and a quarter standard deviation higher than ratings provided by peers. Leniency in self-appraisal is so pervasive that it led David Campbell of the Center for Creative Leadership to conclude, "The vast majority of people consider being average an insult" (Atwater, 1998, p. 342). Similarly, Mount (1984) declared, "The overall conclusion regarding self ratings is that individuals have a significantly different view of their own performance than that held by other raters" (p. 688).

Still, Dunnette (1993) concluded that self-assessments include accurate components, and he warned against assuming the accuracy of others' ratings when discrepancies arise. In a similar vein, the results of a meta-analysis of 55 studies conducted by Mabe & West (1982) suggested that under certain measurement conditions (e.g., expectations that self-ratings will be validated, social comparison terminology in the instructions, assured anonymity through aggregation of data), self-ratings of ability correlate significantly with objective performance criteria. However, self-ratings of managerial ability resulted in one of the lowest correlations with objective criteria ($r = .04$, unweighted).

Despite the propensity toward leniency, numerous advantages have been suggested to result from having individuals rate their own performance within an assessment process. Self-rating is believed to strengthen employee's perceptions that the appraisal process is fair, encourage open communication during a performance review, heighten acceptance of feedback by giving the individual being rated cause to reflect on performance, and lead to greater commitment to subsequent development goals and action plans (Atwater, 1998). In support of this line of thought, Dipboye & de Pontriand (1981) found that one of the factors contributing to positive employee reactions to appraisal systems was the opportunity to present their own side of the issues, which can be facilitated through the use of self-ratings.

In contrast, the results of a study conducted by Smither, London, Vasilopoulos, Reilly, Millsap, & Salvemini (1995) revealed that managers who did *not* complete self-ratings as part of an upward feedback process evinced greater improvement over time than managers who completed self-ratings, leading the authors to question the value of the self-rating practice. Additionally, managers' self-ratings did not change from the first administration of upward feedback to the second administration six months later, leading the researchers to conclude that studies have yet to discern whether the process of completing self-ratings augments or diminishes managers' acceptance of upward feedback.

Peer Ratings

The use of peer assessment dates back to the 1920's (Kane & Lawler, 1978). Peer rating differs from peer ranking and peer nomination in that it requires raters to compare the ratee to some absolute standard, thereby allowing discrepancies in judgment across raters that do not arise with the other two methods (Love, 1981). In a study of peer assessment methods (i.e., peer nomination, peer ranking, and peer rating) conducted with police officers, Love (1981) found that peer rating resulted in the lowest levels of reliability (and therefore, validity) of the three techniques. Moreover, he found that peer nominations and peer rankings showed significantly higher correlations with supervisor rankings and ratings, although all three methods significantly predicted both forms of supervisor evaluation. Despite these shortcomings, Kane and Lawler (1978) had earlier pointed out that of the three peer assessment techniques, peer ratings are most useful for feedback or other situations requiring unique descriptive information about the person.

being rated Mount (1984) noted that peers were the most typical source of ratings outside of supervisors, signaling that the application continues despite psychometric concerns

Additional concerns fueling opposition to the use of peer ratings include the supposition that they may be seen as a popularity contest (Kane & Lawler, 1978), they may be biased by friendships or alliances and they may be manipulated by the peer rater for purposes of advancing his or her own interests (Cardy & Dobbins, 1994) In the study conducted by Love (1981), friendship bias was detected but did not appear to have impeded the correlation between peer assessments and supervisor evaluations

Reactions to peer appraisal have been mixed The police officers who participated in Love's (1981) research expressed negative reactions to all three peer assessment methods and voiced their beliefs that peer assessment is unfair, not accurate, and should not be used for promotion decisions In their study of student project teams, Farh, Cannella, and Bedeian (1991) learned that participants who were evaluated by peers under developmental conditions responded more favorably to the process than students whose peer evaluations were to be counted toward their grades

Despite these concerns and reactions, other unique advantages associated with peer ratings encourages their inclusion in management development practices today Murphy and Cleveland (1995) expressed the belief that peers may be the "single best informed source" (p 143) of performance ratings, stemming from their contentions that (a) peers often work closely with the individual being rated and have sufficient opportunities to observe both task and interpersonal behaviors, (b) the presence of peers is unlikely to induce artificial behaviors on the part of the ratee, and (c) the ratings of peers can be pooled to yield a more reliable rating and one that is less distorted by the idiosyncratic biases of any one rater Cardy & Dobbins (1994) added an additional impetus with the argument that, as compared with supervisors or direct reports, peers may be more aware of the situational constraints that impede a manager's performance and may better understand the critical determinants of effectiveness in the managerial role

Recent research underscores the issues and concerns advanced by scholars both for and against the use of peer ratings In a review of peer assessment research, Funder (1987) found studies in which peer ratings effectively predicted successful performance in such roles as Naval officer, insurance sales, and data processing system sales Based on his review, Funder concluded that peer ratings constitute an

effective way to predict performance in industrial and organizational settings. Research by Farh, Cannella, and Bedeian (1991) found that peer ratings are very sensitive to the conditions under which they are collected. In this study, students working in project teams provided more lenient ratings of their peers when the ratings were tied to grades versus when used solely for the development of the ratee. In addition, the peer ratings made under the evaluative condition showed severe range restriction, lower interrater reliability, and low convergent validity. Although participants in both conditions perceived the process to be valuable and the ratings to be accurate, users in the development condition reported a higher level of acceptance and were more likely than their counterparts to recommend the process. Farh et al. concluded that the use of peer ratings serves as a valuable source of feedback information in developmental contexts, having shown that ratees are receptive to such a procedure and that the ratings produced are reliable and valid. However, they discouraged the collection of peer ratings for evaluative purposes.

In sum, there is evidence to suggest that peer ratings can provide a reliable and valid source of feedback information when used in a developmental context.

Direct Report Ratings

The inclusion of performance feedback from direct reports is seen as necessary for a complete assessment of managerial performance (Murphy & Cleveland, 1995). Although a survey by Bernardin & Beatty (1987) found that managers balked at the notion, studies based on actual administrations report that the practice tends to be well received by managers (Smither, London, Vasilopoulos, Millsap, & Salvemini, 1995). Bernardin & Klatt (1985) found that organizations that included direct report feedback in their appraisals considered their practices to be more effective than organizations that didn't include subordinate input. Despite the positive regard for this practice, a particularly menacing concern is unique to direct reports as a source of coworker ratings: the manager being rated holds a position of authority over direct report raters, leaving them vulnerable to potential retaliation (Mount, 1984). This reality is likely to result in inflation of ratings (Antonioni, 1994).

Not surprisingly, the research on upward appraisal indicates that ratings provided by direct reports are particularly sensitive to the conditions under which they are collected. A study by London and Wohlers (1991) found that 34% of direct reports indicated that they would have rated their managers differently if

their input was to be used for performance appraisal instead of development, and that 24% would have provided different ratings if the process had not been anonymous. Similarly, in a study conducted by Antonioni (1994), direct reports who provided ratings under the condition of anonymity provided significantly lower ratings than their counterparts whose identities could be determined by the target manager. In addition, a significantly greater number of direct reports assigned to the anonymity condition participated in the study, as compared with direct reports who were required to sign their names to their evaluations. The results of this study led Antonioni to conclude that direct report ratings be collected only under conditions of anonymity, and that they be collected only for developmental purposes when first implemented.

In their study of 60 law enforcement agency managers, McEvoy and Beatty (1989) found that direct report ratings predicted managerial performance up to seven years later with about the same level of accuracy as cognitive ability tests, biodata, and assessment centers. Validity coefficients of direct report ratings, corrected for criterion unreliability, ranged from 0.34 to 0.58. The authors suggested that organizations seeking to predict managerial effectiveness up to seven years into the future should consider direct report ratings as a potent and inexpensive alternative to the assessment center methodology.

Here again we have evidence to suggest that input from direct reports can enhance the value of feedback provided to managers for purposes of development, with strong encouragement to take appropriate measures to ensure the anonymity of direct report raters (Mount, 1984).

Discrepancies Between Self-and Other Ratings

As noted by Harris and Schaubroeck (1988), incumbents hold very different views of their performance than others do, with observers showing far greater agreement. This conclusion was based on their meta-analysis which found that peer and supervisor ratings showed greater agreement ($r = .62$) than self-peer ($r = .36$) or self-supervisor ($r = .35$) ratings. Similarly, Conway and Huffcutt's (1997) meta-analysis revealed higher consensus in peer-supervisor ratings of managerial performance ($r = .32$) than was evident for self-supervisor ($r = .19$) or self-peer ($r = .17$) ratings.

A number of issues are believed to drive the discrepancy between self- and other-ratings. Atwater (1998) suggested that factors giving rise to greater differences in self-other ratings may include different

understandings of the job requirements, biases (e.g., halo, leniency), and political motives (e.g., peers and self-raters both stand to benefit from intentional distortion of ratings Cardy & Dobbins, 1994) In addition, she noted that self-raters are different than other-raters in that self-raters base their self-evaluations on their intentions, whereas observers base their ratings on exhibited behaviors

Cardy & Dobbins (1994) suggested that Attribution Theory, Self-Enhancement Theory and Social Comparison Theory may offer some explanation for the phenomenon Self-Enhancement Theory postulates that individuals need to maintain a favorable view of themselves, including the perception of competence, such that they tend to distort information during processing to protect this propitious view Social Comparison Theory posits that people are motivated to form accurate self-assessments and that, when devoid of absolute standards, they will compare themselves to others, Atwater (1998) has suggested that self-raters tend to compare their performance to that of others, whereas others make ratings against objective standards Perhaps the most compelling explanation stems from actor-observer attributions Jones and Nisbett (1971) made the fundamental observation that, "The actor's perceptions of the causes of his behavior are at variance with those held by outside observers" (p. 1) The clear tendency is for the actor to attribute performance to variations in situational factors (e.g., task difficulty) but for observers to attribute that same performance to variations in ability, giving rise to an inherent conflict of perceptions

As with the meta-analysis by Harris and Schaubroeck (1988), research has repeatedly shown self-other rating discrepancies to be of greater magnitude than disparities among ratings from various coworker constituencies (i.e., supervisor-peer supervisor-direct report, peer-direct report) In a study of over 2,000 managers rated by nearly 10,000 direct reports using the Managerial Skills and Perspectives scales from Benchmarks, Fleenor, McCauley, and Brutus (1996) found that average self-ratings were higher than others' ratings and that the correlation between supervisor and direct report ratings was higher ($r = .41$) than self-supervisor ($r = .19$) and self-direct report ($r = .24$) ratings Similarly, in a study conducted by Mount (1984) using mid-level managers from a high-tech firm, self-ratings proved to be significantly higher than supervisor and direct report ratings on five of eight behaviors Moreover, supervisor-direct report ratings showed higher convergence (.24) than did self-ratings in relation to either supervisor (.16) or direct report (.19) ratings Finally, in a study of seven project work teams within an organization, Furnham &

Stringfield (1998) found that while self-raters provided significantly higher performance ratings, there was no significant difference between the ratings provided by supervisors, peers, and consultants. As such, there was considerable discrepancy between self- and other-ratings ($r = .13$), but marked congruence between manager-peer ($r = .61$), manager-consultant ($r = .58$), and peer-consultant ratings ($r = .46$). Thus the self-other rating discrepancy findings have been fairly robust and replicated across a variety of settings.

Harris and Schaubroeck (1988) found that job type moderated self-other ratings with self-supervisor and self-peer correlations proving lower for those holding managerial positions as compared with those holding blue-collar or service positions. Interestingly, job type did not affect *observer* agreement. The authors posited that the ambiguous context of managerial roles, as compared with well-defined roles such as blue-collar or service positions, may permit the operation of egocentric bias.

Finally, several studies have examined the implications of self-other agreement. Insofar as self-awareness is key to effective leadership (Tornow, 1993; Fleenor, McCauley, & Brutus, 1996), the ramifications of self-other agreement pose a concern. In a study of 1,460 managerial participants in a leadership development program, Atwater, Ostroff, Yammarino, and Fleenor (1998) found that self-peer and self-direct report rating agreement was indicative of highly effective performance. They also found that managers who severely underestimated their own performance tended to be highly effective but those who greatly overestimated their own behavior were less effective as managers. In sum, managerial effectiveness was related to self-ratings that were either in agreement with or lower than others' ratings, with lenient self-ratings being correlated with ineffective performance. Related research by Smither, London, Vasilopoulos, Reilly, Millsap, & Salvemini (1995) showed that managers whose self-ratings were equivalent to or lower than ratings provided by their direct reports did not observe a significant increase in their performance ratings in a second administration six months later, however, these results should be interpreted with caution due to low power stemming from small sample size.

And finally, Albright and Levy (1995) conducted a laboratory study in which participants who received feedback from others that was more positive than their self-ratings expressed a more favorable reaction to the feedback than participants whose other-ratings were lower than their self-ratings. Thus

suggests that the direction of self-other rating discrepancy may affect a participant's reaction to – and ultimately acceptance of – feedback from multiple sources

Self-other rating agreement is not the only agreement dimension with which 360-degree feedback recipients must contend. Disagreement both across and within rater groups has also proved to be a common occurrence.

Discrepancies in Ratings Across Constituencies

One of the “received doctrines” of performance assessment is that differences in ratings made by various observers of the same person's behavior constitutes error variance which needs to be minimized. In the context of 360-degree feedback, however, numerous scholars have asserted that discrepancies *across* rating sources should not be dismissed as error variance. Different coworker groups may experience real differences in behavior according to their relationship with the target manager (Tornow, 1993, Murphy & Cleveland, 1995, Conway & Huffcutt, 1996, Salam, Cox, & Sims, 1997). Research has shown that coworker views can indeed represent unique perspectives and that a more complete picture of a manager's performance is gleaned by incorporating them all (Wohlers & London, 1989, Conway & Huffcutt, 1997). Thus, when examining performance ratings from multiple constituencies, agreement is not necessarily synonymous with accuracy (Atwater, 1998). This line of thinking reflects the very reason that compels the use of multiple sources of feedback.

In a study of leadership behaviors set within a defense electronics firm, Salam, Cox, and Sims (1997) found that the behaviors deemed important by the target manager's supervisor (e.g., opportunity thinking) proved quite different from those given priority by the manager him/herself (e.g., challenging the status quo) and by direct reports (e.g., contingent reward). Whereas the leadership qualities of challenging the status quo and encouraging independent action evinced a significant, positive correlation with direct reports' ratings of managerial effectiveness, they showed a significant, *negative* correlation with supervisors' ratings. These results led the authors to observe that, “the particular leader behaviors that are seen to lead to high performance ratings are dependent on the hierarchical role of the person doing the rating” (p. 198) *and* that these contradictory signals and priorities are likely to be confusing to the target manager receiving this feedback.

It has become clear that rater groups do provide differing assessments of the same manager's performance (Chappelow, 1998). Based on their research, Wohlers and London (1989) concluded that coworkers' performance ratings of a target manager reflected a composite of different viewpoints. Mount (1984) arrived at a similar conclusion in his comparison of self-, supervisor-, and subordinate-ratings. "Each rating perspective may actually be measuring a unique aspect of the manager's job performance" (p. 698). Moreover, the results of his study led Mount (1984) to suggest that certain performance dimensions may be rated more reliably by one rating source than another.

But still, the input of peer and direct report raters may lead to different ratings. There are a number of studies suggesting that interrater agreement may be affected by the extent to which behaviors are overt or easily observable. Conway and Huffcutt (1997) noted that a sizable proportion of managerial responsibilities are cognitive in nature and therefore are not easily observed. They conducted a meta-analysis which found only partial support for their hypothesis that greater reliability would be found in ratings of more overt behaviors (i.e., interpersonal behaviors: communication, relationship building, consideration) as compared with more difficult-to-observe cognitive skills (e.g., job knowledge, judgment, problem identification). While direct report ratings showed greater agreement on interpersonal behaviors than cognitive skills, supervisor and peer ratings proved highly reliable for the cognitive dimensions and less so for interpersonal skills. This does, however, lend support for Mount's contention that particular performance dimensions may be rated more reliably by one rater group than another.

Somewhat in contrast, Wohlers and London (1989) assigned rating tasks to 233 students in graduate level management classes; they discovered that raters perceived observable managerial behaviors as easier to accurately evaluate. In a second part of the study using 52 middle level managers, Wohlers and London (1989) then found that the behaviors that had earlier been identified as easier to rate (i.e., more observable: written communication) were characterized by greater consistency in ratings across coworkers. In further support of this finding, Furnham and Stringfield's (1998) study of organizational project teams showed that congruence in ratings was highest across supervisor, peers, and consultants for observable behaviors (e.g., planning, communication) and lowest for more latent or remote attributes (e.g., analytic

ability) Thus, it appears that interrater agreement may be influenced by the extent to which the managerial behavior is observable

All of this evidence suggests that variance representing "real" differences in expectations and interaction exists across rater groups These findings support the use of 360-degree feedback as a vehicle for assuring a more thorough and accurate composite of a manager's performance as perceived by important constituencies affected by that manager's work-related behavior

The key concern, however, for managers as they receive feedback from multiple coworker groups is how to interpret the information when ratings from different groups conflict As Tornow and London (1998) pointed out, 360-degree feedback "can set up potential role conflicts for recipients by suggesting the need to be different things to different people in different contexts" (p. 12) At a minimum, this task can be daunting, but it can at times prove overwhelming To effectively self-manage their developmental responses to 360-degree feedback, managers must integrate large amounts of feedback information - some of which may be contradictory- and then extract priorities among the performance deficiencies indicated so as to move forward with an action plan Intensifying this challenge is the fact that, not only do ratings *across* rater groups vary - they also vary *within* a rating source as well

Discrepancies in Ratings Within Constituencies

Although it might be readily understood that rating discrepancies can arise across constituencies it should not be presumed that ratings *within* a rater group will reflect lower variance than that observed *across* groups (Cardy & Dobbins, 1994) In other words, differences between supervisor and direct report ratings may prove comparable to the variance in ratings made by several direct reports For example, it would be reasonable to expect that direct reports might provide different ratings of their manager's corrective behavior, according to whether they have seen or personally experienced their manager's attempts to alter substandard performance or coach for improvement

Beyond the case of clearly demarcated individual experiences, it may be tempting to assume that raters within the same group (e.g., direct reports) who have basically the same relationship with the target manager should have similar views of that manager's behavior This assumption may be fallacious as well There are a number of viable explanations for this phenomenon Jones and Nisbett (1971) provide one

possible explanation for the observed variance within constituencies, they point out that the observer (i.e., rater) carries a bias into interactions with the target manager in that the observer's own behavior is relatively restricted and consistent (compared with the realm of possible behaviors). Insofar as the rater's own behavior is finite, he/she evokes a restricted and consistent sample of behavior from the target manager, when generalized across raters this "observer-inherent bias" can produce actual differences in interactions with the target manager and resultant differences in ratings of performance. Second, the extant literature on leader-member exchange (LMX) (Graen and Scandura 1987, also see Dienesch and Liden, 1986 for a review), for example, has shown that managers display significantly different behaviors in their interactions with subordinates in their in-groups as compared with those in their out-groups, and that subordinate satisfaction with supervision varies across the two groups (Vecchio & Gobdel, 1984). Thus although the direct reports all share the same basic relationship with the individual in focus (i.e., a reporting relationship), they may well experience different behaviors in their interactions with their manager, thus leading to disparate perceptions of his or her performance. As exemplified by the LMX research, it is imperative to recognize that genuinely motivated differences in performance ratings may be found by looking not only across rater groups, but within the members of any one rater group, as well.

Investigations of the reliability of ratings within each constituency provide evidence that non-traditional sources of performance feedback can yield reliable ratings, but they also show that direct report ratings tend to evince lower reliability, as would be suggested by LMX theory and research. For example, a meta-analysis conducted by Conway and Huffcutt (1996) found that supervisors, peers, and subordinates can provide a reliable within-source index. Direct reports showed the lowest interrater reliability of the coworker groups (.30), followed by peers (.37) and supervisors (.50). The authors suggested that the lower reliability of direct report ratings could reflect the operation of leader-member exchange, wherein a manager tends to treat direct reports differently depending on whether they are in his/her "in-group". Similarly, Mount's (1984) study also showed that ratings of direct reports reflected relatively low interrater agreement (ranging from .15 to .28). Not surprisingly, direct report ratings showed greater discrepancy on behaviors such as delegation and consideration, domains which may be more susceptible to individual differences or in-group/out-group classification.

Greguras and Robie (1998) conducted a generalizability study on the multisource ratings of 153 managers participating in a leadership development program. Their results showed that, in practice, the reliability of ratings varies across rater groups. In order to reach an acceptable level of reliability (i.e., .70 Nunnally, 1978) a 360-degree feedback process needs to collect ratings from a minimum of four supervisors on at least five items/behaviors as well as a minimum of six peer and seven direct report raters with no fewer than 20 items. Under conditions typically encountered in organizational settings, peers proved to be the most reliable raters, followed by direct reports. Although they were the most reliable raters when number of raters and behavioral dimensions were held constant, supervisors proved to be the least reliable source of ratings under conditions in which 360-degree feedback is typically collected. Given that ratees almost never have four supervisors in organizational settings, the authors recommended that practitioners continue to seek – and even begin to weigh more heavily – the input of peer and direct report raters.

In summary, the research conducted to date provides solid evidence that coworkers can provide accurate and valuable feedback to managers, but that the interpretation of such feedback can prove onerous in that disagreement both across and within rater groups is common. The studies referenced above provide some initial guidance for practitioners in terms of minimum rater requirements and insights for helping managers understand the feedback they receive from various coworker groups. Nevertheless, these studies hint that there remains much to be learned about the sources of discrepancy within and across rater groups, and they fall short of answering the question of whether coworker feedback leads to improved performance. The implications of all of this for managers may best be summarized by Chappelow (1998) “Now that I have the data, what do I do with it?” (p. 38)

Does 360-Degree Feedback Lead to Improved Performance?

“The hardest question to be asked of coworker feedback. Does it improve performance? All too often managers are given feedback, dutifully resolve to do better, and nothing changes” (Kaplan, 1993, p. 300). Although organizations implementing 360-degree feedback programs assume that it will result in improved performance, from the researchers’ perspective, there is a lack of conclusive evidence that 360-degree feedback leads to changes in managerial performance (London, 1995, Callender, 1996). The need

for research into the effects of coworker feedback on the subsequent performance of managers has been repeatedly cited (Smither, London, Vasilopoulos, Millsap, & Salvemini, 1995, Reilly, Smither, & Vasilopoulos, 1996) and has stimulated the few existing investigations of the issue

Several reviewers have commented that research has shown performance improvement to result from multisource feedback (Church & Bracken, 1997), though one added, "improvements appear to be moderate" (Dalessio, 1998, p 291) In an examination of the effects of upward appraisal, Hegarty (1974) found that managers who were provided with feedback from their direct reports received significantly higher ratings in a second administration twelve weeks later, whereas managers who did not receive their feedback showed no such increase in ratings Moreover, direct report perceptions of performance improvement were supported by two independent measures of performance, leading Hegarty to conclude that there is strong evidence that direct report feedback leads to positive change in managerial performance

In a two-year study of managers from a large midwestern utility, Fisher, Hazucha, Hezlett, and Schneider (1993) found that the group's performance improved over the two-year period following feedback, and that the performance improvements were observed by both self- and other-raters In addition, Fisher et al found that self-ratings were more consistent with others' ratings in the second administration of the multisource feedback process

Smither et al (1995) found that changes in performance six months after receiving feedback from direct reports fluctuated according to the level of performance reported at the first administration of the feedback Specifically, performance improved significantly for managers who initially received low and moderate ratings, but deteriorated for managers whose initial ratings were high Further investigation showed that the decrement in ratings for managers who initially received high performance ratings could be explained by regression toward the mean, but that none of the increase in ratings for managers with moderate initial ratings and only part of the improvement among managers with low first ratings was due to regression toward the mean Interestingly, these results were found regardless of whether managers were actually given their feedback reports after the first administration, such that managers who did not receive feedback showed a comparable propensity for improvement as those who were informed of their direct reports' ratings

Reilly, Smither, and Vasilopoulos (1996) conducted a longitudinal study in which four administrations of upward feedback were conducted first at a six month interval and then repeatedly at twelve month intervals over a total span of two and a half years. The results of this research partially replicated previous studies in that changes in behavior over time varied in accordance with managers' initial level of performance. Ratings of managers whose performance was initially perceived as deficient increased significantly from the first to second and third to fourth administrations of upward feedback, showing greater improvement than could be expected by regression toward the mean. Moreover, the positive increase in performance ratings was sustained throughout subsequent administrations of the feedback process. Once again, managers whose performance initially yielded high ratings showed regression between the first and second administrations only. Of particular note is the finding that improvement over the entire span of time was unrelated to both the number of times managers had received feedback (ranging from none to four reports) and the point in time at which they received it (never, Time 1 and Time 2 only, Time 3 only, Times 1, 2, and 3). Although the results provided support for earlier research that upward appraisal leads to higher ratings of performance over time, it also confirmed previous work which showed that whether managers actually received the feedback was of little consequence.

Research on Feedback and Goal Setting

Although 360-degree feedback is important to management development in that it leads to heightened self-awareness, there is an implicit expectation within organizations that implement the practice that the feedback will lead to improve performance. Thus, the objective in implementing 360-degree feedback is typically to improve performance, whether at the individual or organizational level, ideally both. Improved performance following the receipt of 360-degree feedback is generally expected to occur through a process of setting goals and engaging in relevant development activities.

Scholars have pointed out that feedback can serve different purposes to employees at different career stages (London, 1997), helping early career employees to assimilate the organization's culture and their roles, midcareer employees to strengthen their performance and identify development areas, and late career employees to maintain their effectiveness and productivity. More generally, feedback is believed to enhance learning and self-knowledge and to increase motivation by clarifying what behaviors are necessary

for successful performance (London, 1997) Studies have shown that feedback functions primarily to (a) direct behavior toward established goals, (b) facilitate learning by providing information about the effectiveness of behavior relative to established goals or objectives and (c) motivate an individual by identifying behaviors that lead to successful performance

The means by which feedback, including 360-degree feedback, typically leads to improved performance is through the setting of goals The literature on goal setting is replete with testimonies of performance improvement (see Locke & Latham, 1994, for a review) In general, goal setting theory posits that that harder goals lead to better performance than easy or moderately difficult goals, and that specific goals prove more effective than no goals or "do your best" goals (Locke, Shaw, Saari, & Latham, 1981) Additionally, the extant literature contends that feedback moderates the effect of goals on performance, such that goal setting without feedback leads to little improvement (Locke & Latham, 1994) When formulated in response to feedback, goals regulate performance by directing effort toward relevant activities, by mobilizing and regulating the energy expended in accordance with the difficulty of the goal, by inducing perseverance over time, and by enabling the formulation of pertinent strategies for goal attainment (Locke, Shaw, Saari, & Latham, 1981, Locke & Latham, 1994) We will briefly examine the application of goal setting to 360-degree feedback, but first several caveats are examined

First, a meta-analysis by Tubbs (1985) concluded that when goal setting properties were measured, strong support was garnered for the effectiveness of setting difficult, specific goals, and for participation in the goal setting process However, Tubbs also discovered that, "when actual effect sizes were coded, it became clear that larger effects have generally been obtained in the lab" (p 480) This conclusion raises a concern when viewed against the expectation that managers – operating in a field setting - will be able to self-navigate the development process by setting feedback-based goals to effect subsequent performance improvement

Relatedly, it has been noted that most goal setting studies focus on a goal as "a specific standard of proficiency on a task, usually within a specified time limit" (Locke, Shaw, Saari, & Latham, 1981, p 126) With regard to management development and the 360-degree feedback received by managers, it is rare that skill proficiency is well-defined, or that coworker expectations are well-defined, and the specified time

limit would generally be established by "yesterday would suffice" Few studies have examined the applicability of traditional goal setting techniques to areas as complex as managerial competencies

Moreover, as Locke and Latham (1994) noted, attempting to achieve specific, challenging goals (typically the impetus for maximal performance under goal setting theory) can actually impede performance under certain conditions Such conditions are those which are devoid of strategic training and include being in the initial stages of learning a new and complex task (e.g., a managerial competency), focusing on a task that is heuristic in nature (e.g., interpreting complex feedback), and receiving pressure to increase effectiveness or perform well immediately (e.g., the inherent expectation that feedback should induce performance improvement) These impeding conditions might apply to a majority of the situations in which managers are attempting self-managed development efforts

Implications for Self-Managed Development

In addition to the protean career philosophy, a second driving force behind the need for self-managed development stems from the trend toward delayering and downsizing As layers and positions were cut, the scopes of employee responsibility grew, including the assumption of responsibilities that were formerly assigned to superiors (Davis, 1990, Latham & Locke, 1991) It is rare that a manager's boss can find the time to partner in his or her development efforts

Contextual issues aside, it is commonly believed that self-regulation or self-management is a natural process (Carver, 1979, Manz, 1986) and that management development is typically self-managed (Margerison, 1988, Dechant, 1990, Willis & Dubin, 1990) Carver (1979) described self-regulation as a naturally occurring process Similarly, Brief and Hollenbeck (1985) began their research with the assumption that employees regulate their own job-related behavior but their results led them to conclude that "the incidence of spontaneous self-regulation of job performance may not be high enough to treat this activity as a naturally occurring process" (p. 206) Latham and Locke (1991) drew a similar conclusion, "Our conclusions about goal setting and self-direction are these although people are natural self-regulators in that goal-directedness is inherent in the life process, they are not innately *effective* self-regulators Skill in self-regulation must be acquired through experience, training, and expertise" (p. 240)

To further compound the complexity of self-managing the development process a requisite precursor to goal setting is the correct interpretation of complicated feedback and the accurate diagnosis of the issues underlying the performance deficiency. Figure 2.1 illustrates the complexity of this process. The interpretation of 360-degree feedback can be a difficult task. The threat to managers' ability to accurately interpret multidimensional feedback and to correctly diagnose the root cause of performance issues is undoubtedly compounded by the psychological processes that occur in the performance assessment process. First, managers may have particular difficulty (A) receiving feedback concerning performance deficiencies and (B) examining their performance objectively; this occurs by virtue of the fact that they have obtained their positions by being more successful than most (Argyris, 1991). Second, increased tenure in role may narrow the incumbent's vision, such that the efficiency of an effective routine hinders recognition of the deficiencies inherent within or created as a byproduct of that process (Davis, 1990). Third, the pervasive tendency for actors to attribute performance to environmental or situational factors is at odds with the propensity of observers to attribute performance to the stable disposition of the actor (Jones & Nisbett, 1971); in other words, the self-rater has a fundamentally different perspective about the causes of performance than the coworkers who also rate his/her performance. Owing to these factors, it can be extraordinarily difficult for a manager to recognize his/her own performance deficiencies without the assistance of outside interpretation.

Technically speaking, the interpretation of 360-degree feedback can prove challenging because of the sheer volume of information and the countless possible combinations of rater agreement levels. A statement by Byrnes (1998) is particularly applicable to the interpretation of 360-degree feedback: "Cues that correspond to multiple causal factors in an imperfect, nonobvious, and abstract way would be harder to interpret than cues that correspond to single causal factors in a reliable and transparent way" (p. 45). A high level of acumen may be required to synthesize messages discernible when looking across competencies, as with the detection of patterns of strength or deficiency which might yield additional clues to the performance puzzle. An even greater level of mastery may be required to integrate information about strengths and weaknesses, such as ferreting out strengths that can be leveraged to add greater power

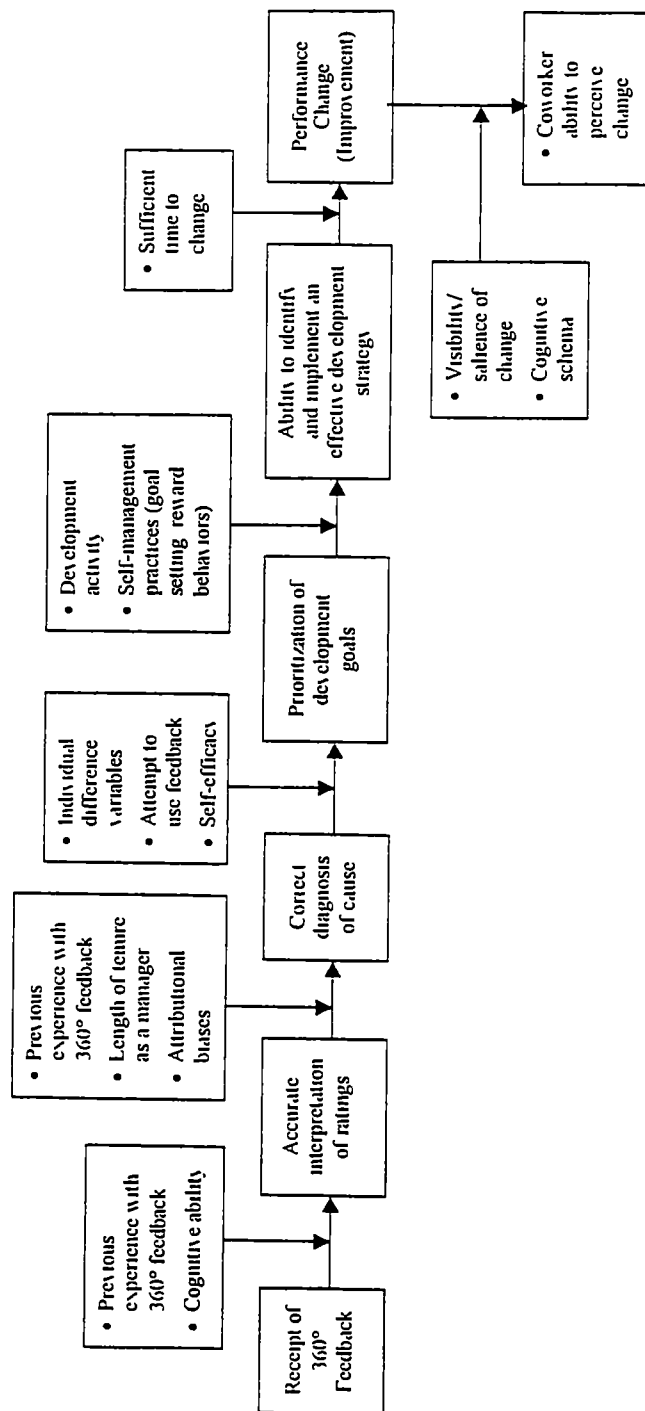


Figure 2.1 A Proposed Model of the Self-Managed Development Process

to one's efforts to address a related development need. At this level of proficiency, feedback interpretation holds the greatest potential for driving improvement.

Once the manager has interpreted the feedback and identified developmental priorities, he or she must then define the nature of the deficiency to identify a suitable strategy for addressing and overcoming it. This next step - diagnosing the root cause of a performance deficiency - may again require some ability to synthesize or integrate across behaviors and competencies. As perceived by Rummier (1972), "A major part of our failure at solving people-centered or people-related performance problems is our failure to analyze these problems completely before we try to solve them" (p. 2). Rummier goes on to express his belief that, "In most cases, where an individual agrees with the work goals, he will improve if he knows: 1) He is off target. 2) How to correct or get on target" (p. 5). Dechant (1990) echoes this concern with his observation that the ability to interpret information and diagnose the learning need is the first competency required for self-directed learning. For self-navigating managers, the ability to create relevant strategies is predicated on the ability to correctly diagnose the root cause indicated by coworker ratings.

With regard to performance deficiencies indicated within a manager's 360-degree feedback, there are any number of potential origins: skill deficiency, lack of communication, role ambiguity, lack of awareness of others' expectations, differential interactions with coworkers at various levels within the organization, personality incompatibility, situational constraints, etc. The manner in which one might go about addressing each of these issues can vary dramatically, whereas a skill deficiency might require training and opportunities for practice, differential interactions with coworkers may require a concerted, conscientious effort to extend developed skills to an underattended constituent group. Asynchronous expectations held by various coworkers requires a far different solution than would a situational or systemic constraint as the root cause of a performance deficiency indicated by 360-degree feedback.

Assuming that developmental priorities have been properly identified, it can be difficult for an inexperienced feedback recipient to accurately determine the likely performance issue implied by a given pattern of coworker ratings. More challenging still may be the identification of a suitable strategy for addressing the underlying issue. As cautioned by London (1997), "the source of the feedback should not take it for granted that the recipient will know what to do with the feedback" (p. 16).

In a study of the impact of 360-degree feedback on management development, Hazucha, Hezlett, and Schneider (1993) found that "not all development activities were related equally to skill development. The development activities which were most strongly related to skill development were among the less frequently performed" (p. 346). In addition, Hazucha et al. found that older employees reported and were perceived as exerting higher levels of engagement in developmental activity, but their persistence did not lead to a greater degree of change.

- Hypothesis 3 Managers who correctly discerned the underlying causes of performance issues indicated by coworker ratings are more likely to show performance improvement in their development areas than managers who were unable to identify underlying issues

To address the next step in the self-managed development sequence, goal setting theory would contend that managers who establish appropriate goals (i.e., specific, challenging) are more likely to be successful in their performance improvement efforts than will naive managers with less goal setting proficiency. Locke and Latham (1994) proposed that the identification of suitable strategies for the attainment of complex goals may emanate from past experience, formal training in strategy development, a grace period for learning without pressure for results, heightened self-efficacy, and an external strategy search capability. From this, we would expect that previous experience with 360-degree feedback, with setting developmental goals, and with engaging in developmental activities would lead to greater effectiveness in identifying effective strategies or development steps to address performance deficits.

- Hypothesis 4a Managers who have received 360-degree feedback more often will be rated by coworkers as showing greater performance improvement in their development areas
- Hypothesis 4b Managers who have a stronger history of engaging in development activities will be rated by coworkers as showing greater performance improvement in their development areas
- Hypothesis 5a Managers who have received 360-degree feedback more often will report making a stronger attempt to use their feedback than will less experienced managers
- Hypothesis 5b Managers who have a stronger history of engaging in development will report making a stronger attempt to use their feedback than will less experienced managers

Bandura (1982) declared that self-efficacy determines how much effort people will expend and how long they will persist in pursuit of their goals. Furthermore, he stated that strength of self-efficacy predicts behavior change, because it heightens commitment and increases the effort (Bandura, 1977). Lent and Hackett (1987) speculated that self-efficacy would predict persistence of engagement in career development programs. Similarly, Noe and Wilk (1993) also expressed the belief that self-efficacy plays a role in development activity; they asserted that higher self-efficacy leads to more positive attitudes toward learning, stronger believes in the benefits of participating in development activities, and a greater awareness of development needs.

Taken together, the insights from these scholars might suggest that managers having more experience with 360-degree feedback as an input to development or who have engaged in a greater number of developmental practices may be more successful in identifying effective action steps. It would follow that experienced managers are likely to have higher self-efficacy in their own ability to improve performance through developmental efforts, and therefore will likely report stronger attempts to use their feedback for development.

Hypothesis 6	Managers reporting higher self-efficacy for development will realize greater improvements in performance in their development areas as a result of their development efforts
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Using the received doctrine that "the best predictor of future performance is past performance", one might expect that managers who routinely (if not effectively) set goals and manage the performance and development of direct reports are more likely to effectively self-navigate or self-manage their own development. In keeping with the tenets of Goal Setting theory, managers who set their own development goals should see greater performance improvement in response to their 360-degree feedback.

Hypothesis 7	Managers who set their own development goals are likely to be rated as more effective in having improved their performance in their development areas
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Rewarding Behavior

A final aspect of self-management pertains to the rewarding of desired behavior. In general, behaviors that are rewarded tend to be repeated. The desired response is strengthened by association with a behavior-contingent reward or reinforcement (Bolles, 1972). It has been noted that, in order for self-managed strategies or efforts to be maintained over time, they must be reinforced (see Manz, 1986 for a review). Presumably, since it is a self-managed process, the manager needs to reward his or her own progress and achievements.

Bandura (1976) explicated that in the self-reinforcement process, individuals regulate their own behavior by making rewards contingent upon the attainment of some previously determined standard of performance. He went on to state that people who self-reward their own behavior when appropriate go on to perform as well or better than individuals who receive externally-provided rewards.

In a study of self-regulating activities, Brief and Hollenbeck (1985) found that few individuals engaged in self-rewards to appropriately reinforce desired behavior.

Hypothesis 8	Managers who reward their own achievements are more likely to realize performance improvement in their development areas through their development efforts.
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In sum, the application of theory to the practice of self-managed development in response to 360-degree feedback is examined. The stipulated hypotheses extend reasonably from the extant literature although the intersection of contextual issues with application raise serious questions regarding the reasonableness of the expectation that developmental responses to 360-degree feedback can be self-managed in keeping with previous research findings.

CHAPTER III

METHOD

Pilot Study

The questionnaire used for the current study was thoroughly reviewed in a pilot study by eleven (11) managers from a large southeastern power organization. Participants were asked to complete the questionnaire and to submit to a brief, one-on-one interview with the principal investigator to provide suggestions for improving the clarity and ease of use of the questionnaire. Participants provided improvement suggestions on a voluntary basis and in response to prepared questions.

Potential participants were identified by a Human Resources director who personally knew the managers and assessed them to have adequate experience with 360-degree feedback to provide useful input for the revisions process. Participation in the pilot study was voluntary, and was solicited through electronic mail. Of the thirteen potential participants contacted, one person declined because of a time conflict and one was unable to meet with the principal investigator; thus, eleven managers reviewed the questionnaire.

The participants included five men and six women. Their jobs were all classified at the managerial level, ranging from supervisory through senior management. The average age of participants was 44.6 years (range from 36 to 58), average organizational tenure was 17.25 years (range from 2.5 to 29 years), and average tenure as a manager was 16.9 years (range from 3 to 25 years). Participant career stage also varied; one manager was in early career, six reported being in "mid-career", and three identified themselves as being in the late career stage. Four of the participants currently had direct reports, with an average of five (5) subordinates.

The questionnaire was revised as a result of participants' responses and comments. Examples of revisions included wording changes and the addition or deletion of response options.

Subject Matter Expert Reviews

Review Number One

At the same time that the pilot study was underway, four Industrial and Organizational Psychologists, identified as 360-degree feedback subject matter experts through their publication records,

were contacted by email and asked to review the questionnaire. All four initially agreed to review and comment on the materials, but only three returned their comments.

The subject matter experts provided comments and reactions, and recommended changes to the design and content of the questionnaire. Specifically, they identified the response options they would endorse for each of the three feedback scenarios provided, in a test of the manipulations designed by the principal investigator. Subsequent changes to the questionnaire and its scenarios were made in response to their reviews.

Review Number Two

After the first round of subject matter expert revisions were made, a new group of subject matter experts was contacted and asked to complete the modified scenarios to determine whether the changes enhanced the intended manipulations. Two Industrial and Organizational Psychologists, one Clinical Psychologist, and one person with a doctoral degree in Organizational Development completed this phase of the study. All four were selected based on their expertise with designing multisource feedback systems for client organizations, interpreting individual feedback results, and providing individual coaching for development; all four were consulting in these areas at the time of their participation in this study. Based upon the performance of these subject matter experts, additional modifications were made to further target the intended effect for the three feedback scenarios.

Subjects

Eight-hundred thirty-seven managers at a large financial services organization in the southeastern United States were contacted to participate in this study. Fifty-two managers (6% response rate) volunteered to participate. Two of the 52 managers failed to return the requisite research materials and as such were eliminated from the study.

Ages of the remaining fifty participants ranged from twenty-five to fifty-seven, with an average age of 34.90 ($SD = 7.14$ years). A majority of participants reported being in the early (40%) or middle (54%) career stages. Half of the participants were female ($n=25$), and the majority (94%) were Caucasian. The majority of participants occupied positions including Analyst (12%), Operations Manager (36%), and Specialist (48%), and represented managerial levels from middle- to senior- management. Participants had

from zero to 170 direct reports, with the average being 10.20 (SD=29.42). Tenure with the company ranged from one to thirteen years, with a mean of 4.26 years (SD=2.19). Participants reported having between zero and twenty-five years of managerial experience, with an average of 5.62 years (SD=6.25).

Procedures

Phase 1 – Leadership Development Program Participation

Prior to the inception of this research, managers voluntarily completed a formal 360-degree feedback process within their employing organization. The feedback process was part of an intensive, three-session leadership development program sponsored by the organization.

Managers in the leadership development program identified coworkers (i.e., boss, peers, and direct reports) to provide them with performance ratings on behaviors relating to twenty-three skill dimensions, which in turn comprised the company's five key competencies. Managers received their feedback during the third and final session of the program, along with detailed information and structured time to complete a developmental action plan. The action plan identified two performance areas in need of developmental improvement as well as one performance strength to be leveraged during their improvement efforts. Moreover, the action plan required the delineation of specific actions to be taken in the pursuit of the individual's development goals.

Participants in the current research completed the program between March, 1997 and July, 1999. To be eligible for the current study, participants must have received their feedback at least six months prior to their participation in this research.

Phase 2 – Solicitation of Participation in the Current Research

Eligible graduates of the leadership development program were contacted by electronic mail and asked to participate in a study examining the program's impact on individuals' development efforts. Managers were informed that participation was voluntary.

The initial contact regarding this study included an informed consent form which served as an indication of managers' intent to voluntarily participate in this research. Managers were informed that their responses would be kept confidential, and that information would be provided to the organization only at

the group level, at no time would individual responses be divulged, nor would any individual respondent be identified

A second section of the communication required participants to delineate the two developmental goals and the strength to leverage from their developmental action plans. Participants then designated coworkers (i.e., boss, peers, and direct reports) to provide improvement ratings on the three identified action plan areas (i.e., two developmental goals and one strength to leverage). Participants were encouraged to identify up to five peers and up to five direct reports, in order to ensure the confidentiality of raters; a minimum of three raters from each group was required in order to provide feedback from each rater group. Some participants identified as many as ten peer raters, thus was usually done when the participant did not have direct reports from whom to gather additional ratings.

In accordance with the design of the study, participants agreed to complete an eighty-eight item questionnaire, along with self-ratings of improvement for their five behavioral areas. As outlined in the initial communication, questionnaires, self-rating forms, and coworker rating forms were distributed shortly after the principal investigator received the participant's informed consent.

In exchange for their cooperation, participants received the composite results of the improvement ratings provided by their coworkers, and their names were included in a drawing for one of five twenty-five dollar gift certificates to local entertainment establishments.

At the time that they indicated their intent to participate, managers were asked to indicate how they preferred to receive subsequent research materials. The two options included electronic transmission, wherein the requisite materials were sent as an electronic mail attachment, or through the traditional method of inter-office mail. Managers were also asked to provide either an electronic mail address or an inter-office mail address for each coworker designated as a rater, and the method of transmission was followed accordingly.

Phase 3 – Dissemination of Research Materials

The third phase of the study was comprised of the dissemination of research materials to be completed by participants and their designated coworkers/raters. Each participating manager received the eighty-eight item questionnaire and the five-item self-rating form via either electronic mail or inter-office

mail according to the stated preference. At the same time, the participant's designated coworkers received the five-item rating form to complete, as well. Once again, the method of distributing rating forms (i.e., electronic or inter-office mail) to coworkers was determined by the participating manager.

Managers and coworkers who received their materials through interoffice mail were supplied with an envelope and two labels: one label was addressed to a contact person within the company that would allow for a return via inter-office mail, and the other label was addressed for direct mail to the principal investigator. Respondents had their choice of which label/return method to use. Similarly, managers and coworkers who received their materials electronically could return their forms using electronic mail or either of the above methods.

Respondents' feedback information was stored in an electronic database, and participating managers were individually assigned a code number. Participants' questionnaires and self-ratings were matched with their coworkers' ratings using the assigned code. From this point on, the electronic database identified participants only by code numbers.

Data was stored on personal computer in the home office of the principal investigator, as well as on a personal computer in the academic office of the committee chair. Questionnaires, rating forms, and informed consent forms were stored in the home office of the principal investigator.

Overall, 54 bosses (77% response rate), 189 peers (77% response rate), and 129 direct reports (77% response rate) provided ratings of performance change for the managerial participants. Response methods are shown in Table 3.1. In total, 372 coworkers provided ratings of managers' improvement.

Table 3.1. Response Rate by Rater Group and Transmission Method

	# Forms Sent	# Forms Received		Response Rate
		Electronic	Paper	
Self	50	44	6	1.00
Boss	70	32	22	0.77
Peer	247	108	81	0.77
Direct Report	167	57	72	0.77

Materials

Performance Improvement Instrument

The four-page instrument used to capture co-worker ratings was designed specifically for this study. All forms were tailored for the participating managers, in order to reflect the manager's sex, when the manager participated in the leadership development program, and the manager's individual development areas. In addition, forms and instructions were tailored by rater group, since rater confidentiality required a minimum of three raters for only the peer and direct report groups. Finally, both an electronic form and a paper questionnaire were developed, to allow for managers' preferences in materials transmission. Paper and electronic forms were identical in content and appearance, with exceptions made when electronic drop boxes (electronic form) replaced bulleted lists of response options (paper questionnaire). An example form is provided in Appendix A.

The rating scale used to measure performance change was a seven-point scale ranging from -3 to +3. The -3 point was anchored with the text, "Less Effective," the zero-point was marked "No Perceptible Change," and the +3 mark was described as "More Effective." An example of the rating form is also provided in Appendix A. The tailored rating form for each manager indicated five performance areas to be rated, including two behaviors which were held constant across all managers, and three behaviors that were unique to each manager. The three behaviors unique to each manager represented that person's developmental action plan items; specifically, they included the individual manager's strength to leverage (one item) and two developmental areas (two items). The two items common to all participants were selected from the distribution of feedback ratings for all managers who participated in the leadership development program; the items were selected from the middle of the distribution and for their small standard deviations, to decrease the likelihood that any individual manager would have included them on his/her developmental action plan.

The purpose of collecting ratings on five items – two development areas, two generic areas originally rated as moderate in effectiveness, and one strength – was to determine whether managers' coworkers were discriminating among any behavioral changes made in these areas, and whether subsequent ratings of improvement in the developmental areas could be meaningfully interpreted.

"An Examination of Managers' Use of 360° Feedback" Questionnaire

The questionnaire was a sixteen page 88-item instrument designed to elicit basic demographic information, as well as information pertaining to individual values, managerial behavior and history, development behavior and history, 360-degree feedback experience, and ability to interpret scenarios pertaining to 360-degree feedback. A copy of the questionnaire is included in Appendix B.

Each of the fifty managers who participated in this study completed the questionnaire. Using the questionnaire, managers self-reported information pertaining to their values and experiences with feedback and development.

Measures

In order to examine the hypotheses delineated in this research, a questionnaire was designed to tap participant biographic information, values, managerial experiences, and feedback interpretation behaviors. Measures of various constructs were included in the questionnaire used for data collection purposes. Some of the scales were taken or modified from previous research, while others were developed specifically for this study.

In addition to the scales, three scenarios depicting hypothetical 360-degree feedback data were designed for this study, along with corresponding inquiries into how participants 360-degree feedback data

Biographical Information

Presented first in the questionnaire was a series of questions designed to elicit basic biographical information from participants. In addition to standard questions (i.e., age, sex, race, level of education), characteristics of particular interest in this study were included. These variables included organizational and positional tenure, number of direct reports, number of previous employers, managerial level, and career stage. Once again, these items can be seen in Appendix B, where the questionnaire is presented in its entirety.

The next set of items was designed to determine when the participant completed the leadership development program that provided him/her with the initial developmental 360-degree feedback. In addition, information was gathered regarding the type of instruction received on interpretation of 360-

degree feedback data, and the number of times the participant had received 360-degree feedback in the past

Career Commitment

Two scales reported in Carson and Bedeian (1994) were adapted for use in this study. *Career Identity* reflected the extent to which an individual invested psychologically in his or her career field. Items included in this scale are reported in Figure 3.1. The four items constituting this scale resulted in a coefficient alpha of .89 in Carson and Bedeian's (1994) first pilot study and .90 in the second. In both studies, the five-point rating scale ranged from 1 = strongly disagree to 5 = strongly agree. In the current study, the same five-point rating scale was used and responses were summed across items and divided by four to obtain a single index of career identity. Higher averages indicated greater levels of identification with one's career.

Items	
1	My career field is an important part of who I am
2	This career field has a great deal of personal meaning for me
3	I do not feel "emotionally attached" to this career field (R)
4	I strongly identify with my chosen career field

Scale: 1 = "Strongly Disagree" to 5 = "Strongly Agree"

Modified from

Carson, K. D., & Bedeian, A. G. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. *Journal of Vocational Behavior*, 44, 237-262.

Figure 3.1. Items measuring career identity.

Career Planning pertained to the extent to which an individual established an action plan or identified development goals related to his or her line of work. Carson and Bedeian's (1994) pilot studies resulted in reliabilities of .84 and .87 in the first and second studies, respectively. This study mirrored their validation study in using a five-point rating scale (1 = strongly disagree to 5 = strongly agree) but once again averaged the responses across items to derive a single score on career planning. The four items used in this scale are shown in Figure 3.2.

Whereas the original items used by Carson and Bedeian (1994) were written with regard to "line of work/career field", the items for the current study were adapted to omit reference to "line of work". Given that the sample for this study held managerial (i.e., professional) positions, the simplification to "career field" seemed appropriate. The instructions for completion of these items provided the clarification that "'career field' means your profession or general occupation", a wording similar to that used by Carson and Bedeian (1994).

Items
1 I do not have a strategy for achieving my goals in this career field (R)
2 I have created a plan for development in this career field
3 I do not identify specific goals for my development in this career field (R)
4 I do not often think about my personal development in this career field (R)
Scale 1 = "Strongly Disagree" to 5 = "Strongly Agree"

Modified from

Carson, K. D., & Bedeian, A. G. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. *Journal of Vocational Behavior*, 44, 237-262.

Figure 3.2. Items measuring career planning.

Due to space considerations, the third career commitment scale used by Carson and Bedeian (1994) was omitted. Career resilience assesses the extent to which respondents feel overwhelmed at times by the demands of their chosen line of work (e.g., "The costs associated with my line of work/career field sometimes seem too great", "Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it"). Because they were not directly related to the hypotheses of this study, these items were omitted.

Job Involvement

Job involvement was measured using Kanungo's (1982) 10-item Job Involvement Questionnaire (JIQ). In his validation study involving 703 participants, Kanungo (1982) found the JIQ to have an internal consistency (alpha) coefficient of .87. Whereas the validation study used a six-point agree-disagree response format, the current study used the typical 5-point response scale ranging from strongly disagree (1) to strongly agree (5). The items comprising the JIQ were unaltered for this study, and are seen in Figure 3.3. It should be noted that Kanungo (1982) found empirical evidence for a clear distinction between job involvement (i.e., involvement in a specific job) and work or career involvement (i.e., the centrality of work, in general, to one's life). Moreover, Carson and Bedeian (1994) found the JIQ to be psychometrically differentiated from their career commitment measures. As such, it is expected that the JIQ items will remain distinct from the career commitment items mentioned earlier.

Organizational Commitment

The extent to which individuals identified with, felt loyalty toward, and were willing to exert effort on behalf of their employing organization was assessed using eleven of the original 15-items on the Organizational Commitment Questionnaire (OCQ) created by Mowday, Steers, and Porter's (1979). In the original validation study involving 2563 employees from nine organizations, Mowday et al. (1979) reported α coefficients ranging from .82 to .93, with a median of .90. A shortened form which omitted the six reverse-coded items proved to have comparable reliability, and as such was deemed an acceptable alternative when space considerations are an issue. The current study retained the nine items from the shortened version, as well as two reverse-scored items which were particularly relevant to the protean

Items
1 The most important things that happen to me involve my present job
2 To me, my job is only a small part of who I am (R)
3 I am very much involved personally in my job
4 I live eat, and breathe my job
5 Most of my interests are centered around my job
6 I have very strong ties with my present job which would be very difficult to break
7 Usually I feel detached from my job (R)
8 Most of my personal life goals are job-oriented
9 I consider my job to be very central to my existence
10 I like to be absorbed in my job most of the time

Scale 1 = "Strongly Disagree" to 5 = "Strongly Agree"

Taken from

Kanungo, R. N. (1982) Measurement of job and work involvement Journal of Applied Psychology, 67, 341-349

Figure 3.3. Items measuring job involvement.

career philosophy (i.e., "I feel very little loyalty to this organization" and "I could just as well be working for a different organization as long as the type of work was similar") The items that comprised this scale can be seen in Figure 3.4

Whereas Mowday et al. (1979) employed a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree), the current study used a 5-point scale (1 = strongly disagree, 5 = strongly agree) McEnrue (1989) used this 5-point scale with the OCQ items and obtained an alpha coefficient of .89 which is comparable to Mowday et al.'s results using a 7-point scale As with Mowday et al.'s (1979) original procedure, the current study summed responses across the items and then divided by the total number of items – eleven – to derive a single, overall indicator of organizational commitment Higher scores indicated greater employee commitment to the employing organization

The instructions for completion of these items provided the clarification that 1) "'organization' refers to the company for which you work", and 2) "'job' refers to your current position within the company" These details were added based on feedback from the pilot study participants indicating that "organization" may confer different meanings that could lead to unreliability of ratings (e.g., department unit or division, company, parent company)

Development Practices and Values

The next series of eight items included in the questionnaire were designed to tap participants' development behavior and values Two items targeted the extent to which respondents set their own career and development goals A third item solicited information about the extent to which individuals reward their own goal attainment Two additional items investigate the extent to which respondents set goals for and reward the accomplishments of their direct reports, the instructions indicated that respondents were to skip these items if they currently had no direct reports A sixth item asked the extent to which individuals are committed to self-development Finally, the last two items were taken from Harland (1991), these items tapped the importance of staying current in one's area of expertise and the extent to which the participant's boss believed professional updating to be important All of the items targeting development practices are shown in Figure 3.5 This loose conglomerate of items was not necessarily intended to constitute a cohesive scale or factor, insofar as the items represent both behaviors and values

Items

- 1 I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful
- 2 I talk up this organization to my friends as a great organization to work for
- 3 I feel very little loyalty to this organization (R)
- 4 I would accept almost any type of job assignment in order to keep working for this organization
- 5 I find that my values and the organization's values are very similar
- 6 I am proud to tell others that I am part of this organization
- 7 I could just as well be working for a different organization as long as the type of work was similar (R)
- 8 This organization really inspires the very best in me in the way of job performance
- 9 I am extremely glad that I chose this organization to work for over others I was considering at the time I joined
- 10 I really care about the fate of this organization
- 11 For me this is the best of all possible organizations for which to work

Scale 1 = "Strongly Disagree" to 5 = "Strongly Agree"

Taken from

Mowday R T, Steers, R M, & Porter, L W (1979) The measurement of organizational commitment
Journal of Vocational Behavior, 14, 224-247

Figure 3.4. Items measuring organizational commitment.

Items	
1	I currently have a specific career goal(s) for myself
2	I very frequently set performance or development goals for my direct reports
3	I regularly reward my direct reports for attaining their goals
4	I currently have a specific development goal(s) for myself
5	I regularly reward myself for attaining my development goals
6	I am highly committed to my own development
7	I feel that keeping current in my field of expertise is very important
8	My manager feels that keeping current in the field is very important
Scale 1 = "Strongly Disagree" to 5 = "Strongly Agree"	

Figure 3.5. Items measuring development practices and values.

Moreover, the items address the behaviors of the individual relative to both self and direct-reports, which may differ considerably. As a final consideration, the last item asks about the values held by the respondent's boss, which may or may not be significantly correlated with the respondent's own values and behaviors. As such, these items are not expected to form a cohesive factor when statistically analyzed. Consistent with these expectations, a coefficient alpha of .51 was obtained for the eight items reflecting development practices and values.

Self-Efficacy

Three items designed to measure self-efficacy for strengthening performance in response to feedback included three items adapted from Adams (1999). Using a 5-point Likert type rating scale (1 = Strongly Disagree, 5 = Strongly Agree), the three items used by Adams (1999) yielded an alpha coefficient of .82.

In keeping with Adams (1999), the current study also utilized the 5-point Likert scale. However, several additional items were added. First, a fourth item focusing on efficacy for self-managed development, in particular, was included ("I am confident in my ability to manage my own development"). In addition, two items pertaining to the perceived adequacy of recent development efforts have been incorporated. The underlying tenet is that those who perceive their recent development efforts to have been relatively successful should have greater self-efficacy toward development, and vice versa. As such, these two items were combined with the more traditional self-efficacy items. All six items are shown in Figure 3.6.

It is important to note that traditional measures of self-efficacy require respondents to first rate whether they are able to perform at a given level, and then to separately provide a second rating indicating their confidence in the ability rating (Maurer and Pierce, 1998). These ratings correspond to Bandura's (1977) specification of three dimensions of self-efficacy – magnitude, strength, and generality. Specifically, the first rating in the traditional measure relates to magnitude, or the level of performance an individual believes he/she can attain; traditionally, this is indicated with a response on a dichotomous (yes/no) index. The second rating corresponds to the strength, or the level of confidence the individual has that he/she can, in fact, perform at the level indicated; traditionally, this has been assessed by a response in the range of 0% to 100% confidence in the ability rating. Maurer and Pierce (1998) challenged the

Items
1 If I apply myself I can use my 360° feedback to develop professionally
2 If I work hard I can improve those areas that were rated as least effective on my 360° feedback
3 I am confident in my ability to improve my work performance
4 I am confident in my ability to manage my own development
5 I engage in enough development activities to remain highly successful in my work
6 The development activities I've pursued have been very effective in helping me remain highly successful in my work

Scale 1 = "Strongly Disagree" to 5 = "Strongly Agree"

Modified from

Adams, D M (1999) An examination of feedback recipients' reactions to multisource feedback
Unpublished doctoral dissertation, The University of Tennessee, 1999

Figure 3.6. Items measuring self-efficacy for strengthening performance in response to feedback.

traditional belief that a Likert scale would fail to sufficiently address these two dimensions. They argued that using a 5-point Likert-scale ranging from strongly agree to strongly disagree may be equivalent to the two responses on the traditional measures. More specifically, they contended that a response on the "agree" side of the scale was equal to a "yes" response on the traditional measure, and a response on the "disagree" side of the scale was equivalent to a "no response". Moreover, the confidence or strength rating can be determined by the distance of the response from the neutral middle rating. Maurer and Pierce (1998) tested this design with 218 college students using very specific target statements (e.g., "concentrate 60% of the class period") across seven aspects of academic performance. Their results led them to conclude, "The results of the current reliability, validity, and confirmatory factor analyses indicate that Likert and traditional measurement formats provide similar results. A Likert scale seems to offer an acceptable alternative method to measure self-efficacy" (p. 329).

The self-efficacy items used in the present study were far more general in nature (e.g., "If I apply myself I can use my 360-degree feedback to develop professionally") than the items used in Maurer and Pierce (1998). However, three of these items were taken directly from Adams (1999), who found a sound level of reliability despite their general nature. Drawing on this precedent, the generally-stated items are included in the present study.

Reactions to Feedback

Six items were included to assess participants' reactions to feedback. These items, shown in Figure 3.7, were meant to discern the extent to which recipients perceived their most recent 360-degree feedback to be accurate and useful, and their raters to be fair and capable of making accurate ratings. In addition, these items targeted recipients' acceptance of their 360-degree feedback and their efforts to use it for their development. Once again, the diverse nature of these items would suggest a moderate or low internal consistency coefficient.

Development History

A series of checklists were designed for this study to thoroughly review participants' histories of engaging in development activities. Although these issues relate to fundamental components of the management development process, no such items were found in the management development literature.

Items
1 My most recent 360° feedback was very accurate in describing my work performance
2 My most recent 360° feedback provided useful information for my development
3 I have made a strong attempt to use my most recent 360° feedback for development
4 I largely agree with the feedback I received from my last 360
5 My raters were completely fair in describing my typical work performance on my last 360° feedback
6 On my last 360, my raters were fully capable of accurately assessing my work performance

Scale 1 = "Strongly Disagree" to 5 = "Strongly Agree"

Figure 3.7. Items measuring participants' reactions to feedback.

As such, items were created specifically for the hypotheses central to this study. These items can be seen in the entirety in Appendix B. The purpose of the development-related items was to determine A) the extent to which participants engage in various developmental activities, B) whether respondents reward their own performance, C) which activities have been effective in their past development efforts, D) participants' reasons for engaging in development activities, and E) what, if anything, curtails their involvement in development efforts.

Self-Reward Behavior

Brief and Hollenbeck (1985) argued that contingent reward or punishment is a necessary condition for self-regulation (Brief & Hollenbeck, 1985), however, their measure of self-reward proved too unreliable for statistical analysis, and their interviews led to them to conclude that individuals rarely engage in tangible self-reward behavior. Taking a different perspective, Manz's (1986) view of *self-leadership* recognizes the reinforcement value of "natural rewards" – those which result from the accomplishment or completion of the activities themselves. Relatedly, input from pilot study participants suggested that most of them did *not* engage in external or tangible reward activity, but most did perceive their work to hold

rewards that are derived from the completion of work activities or the manner in which they structured their work. As such, the item for the current study was written to examine both tangible and natural reward possibilities. Respondents were asked to mark items on a checklist that represent the types of reinforcement they use to reward their own performance. This checklist is shown in Figure 3.8

Engagement in Development Activities

Earlier in the questionnaire, managers were asked to estimate the average number of hours spent per year on development or continuing education activities. A more elaborate item was then included as an attempt to verify whether managers actually participate in development activities to the extent they previously reported. The response options associated with this item are shown in Figure 3.9

Blau (1985) suggested that one approach to measuring professional commitment was to ask respondents the extent to which they participate in various professionally related activities such as reading journals and joining societies or associations. In a similar manner, this item identified seventeen (17) major types of development activities and asked respondents to indicate the extent to which they participated in each activity during the past two years. Based on London's (1989) classification of development activities into the major categories of job experience, interpersonal relationships, and courses or seminars, the response options provided were roughly classified into one of those categories or a fourth category, called general development efforts.

The seventeen development activities referenced within this item were drawn from a wide base of commonly cited activities found within the theoretical and empirical publications in the extant literature (e.g., Burke & Day, 1986; Keys & Wolfe, 1988; Lombardo, 1989; McCauley, Ohlott, & Ruderman, 1989; Davis, 1990; Dechant, 1990; Harland, 1991; Kram & Bragar, 1992; Hazucha, Hezlett, & Schneider, 1993; Baldwin & Padgett, 1994; McCauley, Ruderman, Ohlott, & Morrow, 1994; Rothwell & Kazanas, 1994; Latham & Sejts, 1998). Originally designed to be more comprehensive, the final list was scaled down based upon the recommendations and common responses of pilot study participants.

Additionally, one subject matter expert commented that the developmental activities listed are not equivalent; some activities entail a more strenuous level of involvement while others require substantial investments of time. Consequently, a group of eleven subject matter experts (consultants with considerable

Response Options

Please indicate the manner in which you reward yourself for making progress toward or accomplishing a goal, achieving an important milestone, completing an important or undesirable task, accomplishing your daily objectives, etc Please mark all that apply To reward myself for my performance I

- Take time off from work
 - “Splurge” on something fun (i.e., ice cream, shopping, movies, dinner at a nice restaurant)
 - Do something special with family or friends
 - Buy myself something
 - Take a vacation
 - Indulge in an activity I usually don’t have time for (i.e., golf, a massage, reading for enjoyment)
 - I don’t engage in rewards of this type – the feeling of accomplishment is all the reward I need
 - I don’t engage in rewards of this type – I structure my work so that it is rewarding just to check something off of “the list”
 - I don’t reward myself at all
 - Other _____
-

Figure 3.8. Item examining self-reward behavior.

Response Options

Please use the spaces provided to write in the approximate number of times you have participated in each development activity in just the past 24 months. Do not count the same development activity in more than one category.

In the past 24 months the approximate number of times I have participated in each development activity is

Class or Seminar

- Took a class at a college or university
- Attended a training class, workshop, or seminar for technical, interpersonal or managerial skills, or for leadership development
- Attended a professional conference

Interpersonal Relationships

- Met with my boss to discuss my development
- Met with a professional development coach
- Met with my mentor
- Actively created or sought out professional networking opportunities
- Participated in a discussion group with colleagues in my career field

Job Experiences

- Requested a lateral transfer, job rotation, or overseas assignment
- Requested a challenging job assignment
- Been a member or officer of a professional society
- Served on the Board of another organization

General Development Efforts

- Created a development plan
 - Read relevant books, business magazines, or professional journals
 - Reviewed videos, audiotapes, or books on tape relevant to my development goals
 - Attended a career fair or expo
 - Voluntarily completed skill/interest assessment inventories
-

Figure 3.9. Classification of development activities.

experience teaching 360-degree feedback interpretation and coaching executives on development) were asked to rate the strength of commitment to development that each activity reflects. Using a five point scale ranging from zero ("Engaging in this activity would show no commitment to development whatsoever") to four ("Engaging in this activity would show that a person has an exceptional level of commitment to development"), the eleven subject matter experts assessed the commitment required by each activity.

The agreement of the eleven subject matter experts was calculated for each of the development activities presented in the questionnaire. Inter-rater agreement (r_{WG}) ranged from 0.00 to 0.95, with an average of 0.66. Developmental activities for which there was greater agreement among experts regarding the level of commitment required included creating a development plan, meeting with a mentor, attending a professional conference, and requesting a challenging job assignment. The lowest agreement was observed for such activities as serving on the board of another organization, being a member or officer of a professional society, and requesting a lateral transfer or overseas assignment.

An average of the expert ratings was computed for each activity. Developmental activities rated as requiring the greatest level of commitment included requesting a lateral transfer or overseas assignment, requesting a challenging job assignment, and taking a class at a college or university. Activities perceived as requiring the least commitment to development included attending a career fair, completing skill or interest inventories, and serving on the board of another organization.

For each development activity, the average of the expert ratings was then used to weight individual responses; the weighted responses, in turn, were summed to obtain an overall score of commitment to development. The expert-weighted summed scores representing the number of times or hours that participants engaged in development activities over the course of a year ranged from 8.85 to 221.60, with a mean of 72.99 and a standard deviation of 50.43.

It is important to note that the current research on developmental activity relies on self-report information regarding developmental efforts. Although typically not ideal, reliance on self-report data may be warranted when investigating individual development efforts. Previous research (Noe & Wilk, 1993) found that organizations may not systematically collect information on employees' development activities.

with sufficient reliability to be of use. Other research has suggested that coworkers are not a reliable source of information regarding another's development efforts (sit). Oftentimes individuals do not broadcast or make public their efforts to develop, as such, others largely remain unaware of their actions. McEnrue (1989) comments on the issue by saying, "To the extent that it is individual perceptions and attitudes that determine whether employees' (sic) demonstrate self-development initiative then self-reports are not only useful but essential" (p. 66). Under the circumstances, they may be the most reliable and valid information available. In an effort to increase the accuracy of self-report data, the design of this questionnaire sought detailed information about individuals' development efforts (e.g., number of past mentors, and their first names).

Feedback Scenarios

The final component of the questionnaire consisted of three hypothetical scenarios portraying fictitious 360-degree feedback. The scenarios were specially designed to primarily represent 1) a key organizational value, 2) an essential managerial career competency, and 3) a critical job skill. Moreover, the scenarios showed different patterns of ratings from the fictitious rater groups (i.e., self, boss, peers, direct reports, and overall) such that various potential underlying performance issues were plausibly suggested by the rating patterns. Average ratings and levels of interrater agreement varied across the scenarios in order to examine the ability of participants to interpret feedback information. These scenarios are presented in the questionnaire shown in Appendix B.

As previously noted, the scenarios were revised based upon the performance and reactions of pilot study participants and two sequential reviews by independent subject matter experts.

In the current research, each scenario presented the same series of questions to participating managers. For each scenario, participants were asked to select the description which best represented the level of agreement among raters depicted by the feedback shown. The provided options required participants to distinguish variance within and across rater groups. Specifically, the three scenarios were designed to represent 1) high agreement within rater groups but low agreement across rater groups, 2) high agreement both across and within rater groups, and 3) low agreement, respectively.

Participants were then asked to identify the likely cause of the rating pattern shown in the scenario. Nine response options were provided (e.g., skill deficiency, communication, personality, situational constraints, and differences in treatment of various groups or individuals), along with a tenth option stating, "I have no idea what the real issue behind these ratings might be." Specifically, the three scenarios were intended to represent rating patterns that were likely attributable to 1) treating different groups of people differently, 2) skill deficiency, and 3) situational factors, respectively.

Because the scenarios were designed to elicit a *probable* cause response from managerial subjects, an additional item was added to each scenario to determine how confident the participant was in that he/she had correctly identified the true probable cause of the ratings shown. Four options were provided, ranging from "no confidence – definitely need more information to be sure" to "Absolutely sure I correctly identified the likely cause." The purpose of these items was to discern whether managers could reasonably diagnose the likely issue driving performance ratings, and to assess the degree of managers' uncertainty regarding their attributions. For each of the three scenarios, an elaborate account was provided, with substantial clues to assist the participants in their attributions. The nature of the information provided was comparable to basic performance and contextual information that a manager would be likely to be aware of when drawing inferences from 360-degree feedback *in situ*. It was within these accounts that the scenarios were presented as relating primarily to a key organizational value, an essential managerial career competency, and a critical job skill, as mentioned above.

The next question examined in this research presented participants with eight developmental actions that might be pursued in response to the feedback provided in the scenario. Subjects were asked to rank order those they would recommend to address the performance issue indicated by the ratings shown. Examples of options included disregarding the results, working to clarify others' expectations, skill building exercises, and working to change situational constraints.

CHAPTER IV

RESULTS

Preliminary Analyses

Prior to the tests of the hypotheses preliminary analyses were conducted to examine the sufficiency of the sample size and to ensure the quality of the data. The analyses performed were as follows:

Power Analysis

At the inception of this research, a power analysis was conducted to determine the size of the sample required to detect a true effect if it should occur. Since most of the hypotheses in this study involved ratings of performance improvement as the dependent variable, an attempt was made to estimate the power required to detect an effect that would account for 5% or 10% of the variance in improvement ratings. Consequently, an analysis was completed to determine the sample size required to detect an effect of .224 and .316, respectively – representing moderately small and about moderate effect sizes according to Cohen's (1977) classification. Assuming a significance value of .05 and a desired power level of .80 (the standard established by Cohen, 1977), the sample size needed to detect an effect of magnitudes .224 and .316 was calculated to be approximately 166 and 78, respectively (Cohen and Cohen, 1983).

With a conservative targeted sample size of approximately 160 in mind, a strong attempt was made to identify a host organization that would permit access to approximately 600 to 800 potential participants. It was anticipated that a typical response rate of 25-30% would then allow the targeted sample requirement to be fulfilled. Accordingly, the host organization for this study provided access to 837 managers; however, despite extensive communication efforts, only 6% - or fifty managers – agreed to participate.

Consequently, since the sample size for the current study involved only fifty responses on the dependent variable, the overall power was determined to be low. Thus, the current study is particularly susceptible to Type II error – failing to detect an effect that does, in truth, exist (or failing to reject the null hypothesis).

Scale Reliabilities

Scale means, standard deviations, and alpha coefficients were computed for each of the major scales employed in the research hypotheses. The results of these analyses are presented in Table 4.1. The alpha coefficients, or measures of internal consistency reliability, for the established scales tended to be slightly lower in the current research than in previous research. For example, whereas Kanungo (1982) obtained an alpha coefficient of .87 for his Job Involvement Questionnaire, the current study obtained a value of .79 for the same scale. Similarly, Mowday, Steers, and Porter (1979) reported internal consistency reliabilities ranging from .82 - .93, considerably higher than the value of .77 obtained in the current study.

In addition, the alpha coefficients for the newly designed scales also tended to be somewhat low. In the case of the Development Practices and Values Scale ($\alpha = .51$) this was expected due to the varied nature of the items (e.g., items spanned both values and practices). The scales that were designed for this study were not extensively validated; thus, the low alpha coefficients may indicate that the measures may fail to adequately or cohesively represent the constructs they were intended to measure.

Table 4.1. Scale Statistics and Reliabilities.

Scale	# Items	Mean	SD	Alpha	n
Career Identity	4	13.6596	3.2389	.8449	47
Career Planning	4	14.9184	2.7676	.7068	49
Career Commitment	8	28.5217	2.1022	.8085	46
Job Involvement	10	30.6939	5.6355	.7894	49
Organizational Commitment	11	45.0000	4.2720	.7660	49
Development Practices and Values	8	30.6842	3.4178	.5145	38
Self-Efficacy for Development	6	23.5400	2.6894	.6329	50
Reactions to Feedback	6	22.8936	3.0448	.7215	48

Descriptive Statistics and Correlations for the Dependent and Independent Variables

Means, medians, standard deviations, skewness, and kurtosis were computed for each of the dependent and independent measures. This information is provided in Table 4.2. In addition, the correlations between the independent and dependent variables were computed and are shown in Table 4.3.

Table 4.2. Descriptive Statistics for Independent and Dependent Variables

<u>Independent Variables</u>	<u>Scale</u>	<u>Range</u>	<u>Mean</u>	<u>Median</u>	<u>Std. Dev.</u>	<u>Kurtosis</u>	<u>Skewness</u>
Career Commitment	1 to 5	2.63	3.58	3.75	0.624	-0.100	-0.633
Job Involvement	1 to 5	2.40	3.08	3.00	0.560	-0.205	0.530
Organizational Commitment	1 to 5	1.64	4.09	4.05	0.385	-0.576	-0.175
Correct Diagnosis of Performance Cause	0 to 3	3.00	2.26	2.00	0.778	-0.010	-0.768
# 360-Feedback Experiences	-	10.00	3.80	2.50	3.520	-0.612	0.966
Hours Spent Per Year on Development	-	497.00	104.42	70.50	117.774	4.350	2.134
SME-Weighted Development Self-Efficacy	-	212.75	72.99	63.97	50.426	2.160	1.565
	1 to 5	2.00	3.92	4.00	0.448	0.019	-0.482
"I currently have a specific development goal"	1 to 5	3.00	4.14	4.00	0.670	2.798	-1.015
"I regularly reward myself for attaining my goals"	1 to 5	3.00	2.78	2.50	0.996	-1.411	0.077
Self-Reward Behaviors	0 to 8	5.00	2.00	2.00	1.229	-0.138	0.344
<u>Dependent Variables</u>	<u>Scale</u>	<u>Range</u>	<u>Mean</u>	<u>Median</u>	<u>Std. Dev.</u>	<u>Kurtosis</u>	<u>Skewness</u>
Hours Spent on Development	-	497.00	104.42	70.50	117.774	4.350	2.134
SME-Weighted Development Activity	-	212.75	72.99	63.97	50.426	2.160	1.565
Performance Improvement on Development Goals	-3 to +3	1.83	1.08	1.10	0.414	0.549	-0.682
"I have made a strong attempt to use my 360 feedback for development"	1 to 5	3.00	3.65	4.00	0.948	-0.511	-0.615

Table 4.3. Correlations Among Independent and Dependent Variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Career Commitment	1.00																
2 Job Involvement	.285*	1.00															
3 Org Commitment	.312*	.484*	1.00														
4 Correct Diagnosis of Performance Cause	-.152	-.262	-.068	1.00													
5 Correct Diagnosis - Dichotomized	-.146	-.159	-.031	.825**	1.00												
6 # 360 Experiences	.100	.110	.221	.110	.159	1.00											
7 Hours Spent Yearly on Development	.242	-.112	-.016	.043	-.167	-.045	1.00										
8 SME-Weighted Development Activity	.248	.036	.145	-.161	-.102	.384**	.234	1.00									
9 Self-Efficacy	.344*	.005	.309*	-.127	-.119	.307*	.066	.239	1.00								
10 "I currently have a development goal"	.213	.063	.078	-.032	-.066	.117	.184	.425**	.365**	1.00							
11 "I regularly reward myself"	.137	.141	-.117	-.215	-.252	-.056	-.094	-.198	-.039	.047	1.00						
12 Self-Reward Behaviors	.328*	-.011	.150	.021	.099	-.071	.253	.165	.006	.124	.217	1.00					
13 Improvement on Development Goals	-.138	.007	-.005	-.287*	-.331*	-.087	.052	-.237	.092	-.252	-.102	-.155	1.00				
14 Improvement on Distractor Items	-.156	-.001	.026	-.368**	-.312*	-.067	.091	-.090	.145	-.159	-.068	-.145	.706**	1.00			
15 Improvement on Strengths	-.150	.055	.031	-.074	.035	.028	-.030	-.132	-.079	-.380**	-.130	-.161	.546**	.689**	1.00		
16 Average Overall Improvement	-.102	.029	.053	-.328*	-.318*	.005	.092	-.134	.171	-.195	-.043	-.141	.870**	.909**	.753**	1.00	
17 "I've made a strong attempt to use my 360 feedback"	.336*	.224	.229	-.098	.028	.213	.222	.210	.324*	.201	-.083	-.071	.143	-.158	-.208	-.138	1.00

Performance Improvement Dimensions

The descriptive statistics for the ratings from each rater group on the five performance improvement dimensions are shown in Table 4.4. The means and standard deviations for all five items are within a reasonably acceptable range for a seven-point rating scale. However, self- and boss-raters tended not to rate target managers as “less effective” (i.e., a negative rating), whereas peer and direct report rater groups both used the negative end of the rating scale for all five dimensions.

Interrater Agreement

Insofar as the current research involved multiple rater groups, a decision was required regarding whether the ratings from the various rater groups would be combined or considered separately. To decide this issue, two analyses were performed using the coefficient set forth in James, Demaree, and Wolf (1984) for estimating within-group interrater reliability (r_{WG}). They define within-group interrater reliability as a reliability coefficient representing the proportion of variance in the ratings that is not attributable to error, or nonerror variance.

Within-group interrater reliabilities were calculated on the ratings made by each rater group, on each performance improvement dimension, for each participating manager. Calculation of r_{WG} required a minimum of three raters per group; consequently, only 45 of the 50 participating managers had a sufficient number of peer raters for the calculation of this statistic, and only 33 of the 50 managers had a sufficient number of direct report raters. In addition, r_{WG} was calculated on the combined ratings of peer and direct report raters on each performance improvement dimension for each manager, as well as for the combined ratings of peer, boss, and direct reports. Within each rater group or combination of rater groups, the r_{WG} coefficients were then examined for each of the five performance improvement dimensions (i.e., one strength, two development areas, and two “distractors”). Note that when r_{WG} was less than zero, indicating disagreement in the ratings of a rater group on one performance improvement dimension, the value for that case was set to zero, indicating an absolute lack of agreement. In total, negative r_{WG} coefficients were obtained and set to zero in 17 instances (of 890 calculated coefficients).

Table 4.4. Descriptive Statistics for Ratings on the Five Performance Improvement Dimensions.

		DISTRACTOR 1	DEVELOPMENT GOAL 1	STRENGTH	DISTRACTOR 2	DEVELOPMENT GOAL 2
SELF (n = 50)	Range	0 to 3	-1 to 3	0 to 3	0 to 3	0 to 3
	Mean	1 48	1 34	1 50	1 10	1 20
	SD	7997	9607	9091	7354	8806
	Kurtosis	- 335	- 130	- 724	420	- 778
	Skewness	- 062	- 602	170	481	149
BOSS (n = 54)	Range	0 to 3	0 to 3	0 to 3	0 to 3	-1 to 3
	Mean	1 50	1 11	1 50	1 24	1 31
	SD	7203	9248	9664	8673	1 0061
	Kurtosis	- 166	-1 020	- 916	- 804	- 667
	Skewness	- 472	218	130	044	012
PEER (n = 189)	Range	-2 to 3	-2 to 3	-1 to 3	-3 to 3	-3 to 3
	Mean	1 14	1 05	1 29	1 02	9418
	SD	9180	9743	1 0173	9647	1 1540
	Kurtosis	1 309	121	- 980	1 125	1 214
	Skewness	- 903	- 485	045	- 319	- 683
DIRECT REPORT (n = 129)	Range	-3 to 3	-3 to 3	-3 to 3	-3 to 3	-3 to 3
	Mean	1 26	1 12	1 32	1 16	1 09
	SD	9962	1 1634	1 1791	1 1142	1 1992
	Kurtosis	3 845	904	707	1 025	0 974
	Skewness	-1 323	- 744	- 527	- 519	- 387
PEER, BOSS, & DIRECT REPORT (n = 372)	Range	-3 to 3	-3 to 3	-3 to 3	-3 to 3	-3 to 3
	Mean	1 23	1 08	1 33	1 10	1 05
	SD	9268	1 0354	1 0690	1 0074	1 1542
	Kurtosis	2 458	505	- 073	978	1 035
	Skewness	-1 074	- 531	- 218	- 370	- 513

In the first analysis completed to determine whether group ratings could reliably be combined the precedent set by George (1990) was followed. George asserted that a value of .70 or above is sufficient to demonstrate within-group consistency. The question in the current research was whether the ratings by peers, direct reports, and bosses could be combined, or whether lack of agreement among these rater groups would necessitate considering them separately. Consequently, mean and median r_{WG} coefficients were calculated across all five performance improvement dimensions for 1) peers, 2) direct reports, 3) peers and direct reports combined, and 4) peers, boss, and direct reports combined.

As shown in Table 4.5, the mean and median r_{WG} coefficients for peer raters were greater than .70 for all five performance dimensions, suggesting that there is sufficient agreement within the peer rater group to use the group mean as indicative of the ratings of the individual raters within the peer group. A similar examination of the direct report rater group reveals that the median r_{WG} for the direct report rater group exceeded .70 for all five performance dimensions, however, the mean r_{WG} failed to reach that criterion for two dimensions: the strength and the second development goal. This diminished level of agreement renders slightly less tenable the assumption that all raters within the direct report group can be considered relatively interchangeable on the basis of their ratings across dimensions. However, when direct report ratings are combined with those of peer raters and with those of boss and peer raters, the r_{WG} coefficient exceeds the value of .70 for all performance improvement dimensions with the exception of the mean value for the second development goal. This suggests that combining direct report ratings with those of peer and boss raters provides a better solution than considering that rater group independently, reducing the error variance of the ratings.

The question still remains whether the lower r_{WG} coefficient for the second development goal should preclude the assumption that rater groups can be combined and treated as one. Given the skewed distributions of coefficients, the median value was deemed to be an equally if not more appropriate indicant for consideration, since the median value of r_{WG} exceeded .70 for the second development goal, the combination of raters was judged to be appropriate in this case as well.

In the next analysis, a repeated measures multivariate analysis of variance was conducted as a second examination of the justification for combining ratings across rater groups. The results of this

Table 4.5. Agreement (r_{WG}) within Rater Groups Across Performance Improvement Dimensions.

		DISTRACTOR 1	DEVELOP GOAL 1	STRENGTH	DISTRACTOR 2	DEVELOP GOAL 2	OVERALL
PEER (45 groups)	Range	0 0000 – 1 0000	0 2500 – 1 0000	0 2500 – 1 0000	0 2500 – 1 0000	0 0000 – 1 0000	0 0000 – 1 0000
	Median	0 9167	0 8250	0 7500	0 8750	0 7708	0 8250
	Mean	0 8036	0 7655	0 7707	0 7912	0 7159	0 7694
	SD	0 2516	0 2032	0 1462	0 1821	0 2451	0 2067
	Skewness	-2 189	-1 391	-1 085	-1 447	-1 336	-1 641
	Kurtosis	4 369	1 148	2 734	1 352	1 527	2 718
DIRECT REPORT (33 groups)	Range	0 0000 – 1 0000	0 0000 – 0 9375	0 0000 – 1 0000	0 0000 – 1 0000	0 0000 – 1 0000	0 0000 – 1 0000
	Median	0 8333	0 7708	0 7500	0 8333	0 7500	0 7708
	Mean	0 7782	0 7210	0 6918	0 7432	0 6586	0 7185
	SD	0 2306	0 2395	0 2150	0 2746	0 2549	0 2443
	Skewness	-1 760	-1 686	-1 662	-1 530	-0 864	-1 363
	Kurtosis	3 314	2 612	3 237	1 674	0 244	1 435
PEER & DIRECT REPORT (50 groups)	Range	0 0000 – 1 0000	0 0833 – 0 9375	0 0000 – 0 9286	0 1071 – 0 9643	0 1310 – 0 9583	0 0000 – 1 0000
	Median	0 8571	0 7798	0 7523	0 8255	0 7292	0 7818
	Mean	0 7935	0 7543	0 7308	0 7728	0 6799	0 7463
	SD	0 2300	0 1860	0 1641	0 1764	0 2226	1999
	Skewness	-2 302	-1 612	-2 163	-1 689	-1 626	-1 806
	Kurtosis	5 308	3 091	7 540	3 524	2 632	3 794
PEER, BOSS, & DIRECT REPORT (50 groups)	Range	0 0000 – 1 0000	0 2143 – 1 0000	0 0000 – 1 0000	0 2321 – 0 9500	0 0000 – 0 9514	0 0000 – 1 0000
	Median	0 8518	0 7778	0 7560	0 8192	0 7286	0 7847
	Mean	0 7797	0 7603	0 7261	0 7774	0 6836	0 7494
	SD	0 2160	0 1622	0 1560	0 1582	0 2030	1846
	Skewness	-2 342	-1 315	-2 448	-1 582	-1 660	-1 798
	Kurtosis	5 601	2 209	8 994	2 950	3 335	4 156

analysis revealed no significant effect for rater group [Wilks' $\Lambda = .971$, $F(10, 728) = 1.082$, $p = .373$], thereby providing further justification for combining the rater groups. Overall then, based on the within-group interrater reliability coefficients, rater groups need not be considered separately when examining the ratings of managers on the performance improvement dimensions. Significant differences in the interrater reliabilities of rater groups were not observed such that ratings from any one rater group can be treated as having been drawn from the same population as those from any other rater group.

Based on the results of these two analyses, the decision was made to use the combined ratings of boss, peer, and direct report raters when testing the hypotheses involving improvement ratings of the five performance dimensions.

Differentiation of Improvement Across Performance Dimensions

The design of this study sought to determine the relationships among various independent variables that may influence the performance improvement attained in managers' developmental areas. Of central interest was whether coworker ratings of improvement differed across the performance dimensions (i.e., two common distractor items, one strength, and two development areas). It was expected that the greatest ratings of improvement would be found for development areas, less improvement shown in areas of pre-existing strength, and little to no improvement reported for the two areas that were not included in managers' development plans (i.e., the common distractor items).

Table 4.6 reports the means tests across performance dimensions for each rater group, and for all rater groups except self combined. When all rater groups except self are combined, there is a significant difference found in all pairings of the strengths, development goals, and distractor items. Therefore, it can be concluded that there were significant differences across the key dimensions of managerial performance being rated in this study.

It is important to note that the mean of coworker ratings on managers' strengths was higher than that of coworker ratings of managers' development areas, indicating that greater performance improvement was perceived to occur for managers' strengths than for their development goals. This was contrary to the expected result.

Table 4.6. Means Tests Across Performance Improvement Dimensions by Rater Group.

		Mean ₁	Mean ₂	<i>t</i>	<i>df</i>
Self Raters	Distractors -Development Goals	1 29	1 27	185	49
	Strengths - Development Goals	1 50	1 27	1 527	49
	Strengths - Distractors	1 50	1 29	1 643	49
Boss Raters	Distractors -Development Goals	1 37	1 21	1 799	53
	Strengths - Development Goals	1 50	1 21	2 347*	53
	Strengths - Distractors	1 50	1 37	1 188	53
Peer Raters	Distractors -Development Goals	1 08	0 99	1 410	188
	Strengths - Development Goals	1 29	0 99	3 634**	188
	Strengths - Distractors	1 29	1 08	2 847**	188
Direct Report Raters	Distractors -Development Goals	1 21	1 10	1 723	128
	Strengths - Development Goals	1 32	1 10	2 642**	128
	Strengths - Distractors	1 32	1 21	1 348	128
Boss, Peer, & Direct Report Combined	Distractors -Development Goals	1 17	1 06	2 617**	371
	Strengths - Development Goals	1 33	1 06	5 028**	371
	Strengths - Distractors	1 33	1 17	3 309**	371

Tests of Hypotheses

The main focus of the current research was to examine whether managerial values experience with feedback and development and ability to interpret feedback information were related to subsequent performance improvement. In general, it was expected that the greatest developmental improvement would be realized by managers who had more experience with feedback showed greater commitment through their development efforts, and displayed stronger abilities in the tasks required by self-managed development. A detailed examination of the specific hypotheses follows.

Hypothesis 1

In keeping with the protean career view, the first hypothesis predicted that managers reporting higher levels of career commitment than job involvement or organizational commitment would report the greatest amount of development activity. Scale scores for organizational commitment, job involvement and career commitment were computed by averaging each manager's responses to items on the Organizational Commitment Questionnaire (Mowday, Steers, & Porter, 1979), the Job Involvement Questionnaire (Kanungo, 1982), and Career Commitment (Carson & Bedeian, 1994) inventory, respectively. The resultant scores were compared, and managers were categorized according to which scale received the highest average score, reflecting the strongest level of affect. Managers whose highest score was received for the career commitment scale were compared to those whose highest score occurred on either the job involvement or organizational commitment scale.

Amount of development activity was operationalized two ways. First, subject-matter expert-weighted composites of participants' reported annual development activities comprised the criterion variable. As shown in Table 4.7, a one-way analysis of variance conducted for this operationalization of development activity was not significant ($F = 2.060, p = .158$).

A second operationalization of development activity used participants' reports of the number of hours spent per year on development. The results of the one-way ANOVA using this operationalization of the dependent variable are shown in Table 4.8. As can be seen, the results of this analysis indicated that there was no significant difference ($F = .052, p = .820$) in the amount of development activity reported by

managers scoring highest on career commitment, compared with that reported by managers scoring highest on job involvement or career commitment scales

As shown in Table 4.3, career commitment was not significantly correlated with either the subject-matter expert-weighted composite scores ($r = .248, p > .05$) or the reported number of hours spent annually on development activities ($r = .242, p > .05$)

In summary, then, this hypothesis was not supported. These results indicate that, regardless of how development activity was operationalized, there was no significant difference in the amount of development activity reported by managers scoring highest on the career commitment scales when compared to the amount of development activity reported by those whose highest scores were on the job involvement or organizational commitment scales

Table 4.7. One-way ANOVA on the Effect of Career Commitment on Subject-Matter Expert-Weighted Development Activity.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	5126.847	1	5126.847	2.060	.158
Within	119470.26	48	2488.964		
Total	124597.10	49			

Table 4.8. One-way ANOVA on the Effect of Career Commitment on Participant-Reported Hours Spent Annually on Development Activity.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	742.561	1	742.561	.052	.820
Within	678927.62	48	14144.325		
Total	679670.18	49			

Hypothesis 2

Hypothesis 2 postulated that managers who reported higher levels of career commitment than job involvement or organizational commitment would be rated as improving more in their development areas than their counterparts who reported higher levels of job involvement or organizational commitment than career commitment. Both with this hypothesis and throughout the subsequent analyses, improvement in the development areas was operationalized as the mean ratings of all rater groups except self, combined across the individual's two development areas.

This hypothesis was not supported. A one-way ANOVA shown in Table 4.9, revealed no significant differences ($F = 1.714, p = .197$) in development area improvement for managers scoring highest on career commitment, as compared to managers scoring highest on job involvement or organizational commitment. A subsequent look at Table 4.3 shows that career commitment exhibited a non-significant correlation with the combined ratings ($r = -.138, p > .05$).

Test of Hypothesis 3

The third hypothesis predicted that managers who correctly diagnosed the underlying causes of performance issues indicated by coworker ratings were more likely to show development area improvement than their counterparts who could not diagnose performance issues as effectively. Ability to discern the underlying causes of performance was determined by the number of correct diagnoses across the three hypothetical performance feedback scenarios presented in the questionnaire. Possible scores thus ranged from zero to three on this criterion. For the current analysis, diagnostic performance was dichotomized into correct diagnosis of all three scenarios and correct diagnosis of fewer than three scenarios. Twenty-eight individuals correctly diagnosed fewer than three performance issues, and twenty-two correctly identified all three performance issues. Improvement was once again determined by the combined ratings.

A review of the correlation table provided in Table 4.3 shows a significant negative correlation ($r = -.287, p < .05$) between diagnosis of performance issue and performance improvement on development areas. Similarly, an ANOVA using the dichotomous classification on the independent variable showed a significant effect for the ability to correctly diagnose the underlying cause of performance ($F = 5.924, p = .019$). The results of this analysis are presented in Table 4.10.

Table 4.9. One-way ANOVA on the Effect of Career Commitment on Developmental Performance Improvement.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	0 290	1	0 290	1 714	197
Within	8 110	48	0 169		
Total	8 400	49			

Table 4.10. One-way ANOVA on the Effect of Ability to Correctly Diagnose Underlying Causes of Performance Issues on Developmental Performance Improvement.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	0 923	1	0 923	5 924	019
Within	7 477	48	0 156		
Total	8 400	49			

These findings, which are in the opposite direction of the hypothesized relationship, indicate that greater performance improvement was realized by managers who correctly diagnosed *fewer* performance issues. A post hoc analysis will explore this issue further.

Test of Hypothesis 4

The first part of the fourth hypothesis predicted that managers who received 360-degree feedback more often would receive higher ratings of improvement on their developmental areas than managers who had fewer experiences with 360-degree feedback. The correlation between 360-degree feedback experience and combined ratings was nonsignificant ($r = -0.087, p > 0.05$). In addition, an ANOVA was performed by using a median split to categorize 360-degree feedback experience into one of two levels. The median value for experience with 360-degree feedback of 2.00 administrations was used to categorize participants. The results of the one-way ANOVA are shown in Table 4.11. There was no difference ($F = 0.812, p = 0.372$) between the two groups in performance improvement ratings.

Overall, hypothesis 4a was not supported. There was no difference between experienced and inexperienced 360-degree feedback recipients in terms of their developmental improvement ratings.

Table 4.11. One-way ANOVA on the Effect of 360-Degree Feedback Experience on Developmental Performance Improvement.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	0.142	1	0.142	0.812	0.372
Within	8.201	47	0.174		
Total	8.343	48			

The second part of hypothesis four predicted that managers with a stronger history of engaging in development activities would show greater performance improvement in their development areas than managers with less experience of engaging in developmental activity. As with the first hypothesis, history of development was operationalized both as the subject-matter expert-weighted composite score and as the number of hours reportedly devoted to development on an annual basis. To test the current hypothesis, the two predictor variables were simultaneously regressed on the dependent variable, combined ratings. The results of this analysis are presented in Table 4.12. Neither operationalization of development activity significantly predicted performance improvement ($R^2 = .069$, $F = 1.729$, $p = .189$). However, the effect of the subject-matter expert-weighted scores approached significance ($t = -1.823$, $p = .075$) and as such was considered marginal. Consequently, a median split was performed on the subject-matter expert-weighted composite scores, and an ANOVA performed. The results of this analysis, shown in Table 4.13 indicate a significant difference ($F = 6.250$, $p = .016$) between the two groups in performance improvement. Managers whose expert-weighted composite scores were less than 64 realized a significantly greater level of performance improvement than managers whose expert-weighted composite scores were greater than 64. Contrary to the direction of the hypothesized relationship, this finding indicates that managers whose developmental activities showed less commitment realized greater improvement in their development areas than their counterparts whose activities reflected stronger commitment. In sum, Hypothesis 4b was not supported.

Table 4.12. Summary of Simultaneous Regression Analysis for Development Activity Variables Predicting Developmental Performance Improvement.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	1.193	.107		11.109	.000
SME-Weighted Activity	-.00217	.001	-.264	-1.823	.075
# Development Hours Per Year	-.00040	.001	.114	.786	.436

Table 4.13. One-way ANOVA on the Expert-Weighted Development Activities on Developmental Performance Improvement.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	968	1	968	6.250	.016
Within	7.432	48	155		
Total	8.400	49			

Test of Hypothesis 5

Hypothesis 5 anticipated that managers who received 360-degree feedback more often would report making a stronger attempt to use their feedback than managers with less 360-degree feedback experience. Once again, 360-degree feedback experience was split at the median value of 2.00. Attempt to use the feedback was measured by managers' response to the item, "I have made a strong attempt to use my 360-degree feedback for development" on a 5-point rating scale (1= "Strongly Disagree", 5= "Strongly Agree")

As shown by the ANOVA results presented in Table 4.14, this hypothesis failed to garner support. Although the effect of 360 experience on attempt to use the feedback approached significance ($F = 3.068$, $p = .086$), the results failed to reach the predetermined criterion for significance (e.g. $p < .05$). The correlation between 360 experience and attempt to use feedback was insignificant ($r = .213$, $p > .05$) as well. In conclusion, there was no significant difference between experienced and inexperienced feedback recipients in the strength of their attempts to use their feedback.

Table 4.14. One-way ANOVA on the Effect of 360-Degree Feedback Experience on Attempt to Use Feedback for Development.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	2.521	1	2.521	3.068	.086
Within	37.792	46	0.822		
Total	40.313	47			

The second component of Hypothesis 5 surmised that managers with a stronger history of developmental activity would make a greater attempt to use their feedback than their peers who lacked a strong development track-record. To analyze this research question, a simultaneous regression was performed to examine the effects of the two operationalizations of development history on attempt to use the feedback. As can be seen from the results reported in Table 4.15, this hypothesis was not supported ($R^2 = .075$, $F = 1.876$, $p = .165$). Those who had engaged in development activity to a greater extent in the past were not significantly different from those who had not engaged as much in development when it came to the strength of their attempt to use their feedback for development.

Test of Hypothesis 6

The sixth hypothesis expected managers with higher self-efficacy for development to realize greater improvement in their development areas than would managers with lower self-efficacy for development. The correlation between self-efficacy and combined ratings proved non-significant ($r = .092$, $p = .525$). The hypothesis was not supported. It is concluded that self-efficacy did not make a difference in the performance improvement managers attained in their developmental areas.

Table 4.15. Summary of Simultaneous Regression Analysis for Development Activity Variables Predicting Attempt to Use Feedback for Development.

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	3.274	.245		13.346	.000
SME-Weighted Activity	.003099	.003	.166	1.139	.261
# Development Hours Per Year	.001455	.001	.182	1.247	.219

Test of Hypothesis 7

The seventh hypothesis predicted that managers who set their own development goals would receive higher ratings of performance improvement on their development areas than would managers who had no such goals. Whether managers had a specific developmental goal was determined by their responses to the item, "I currently have a specific development goal for myself," which was rated on a 5-point scale ranging from "Strongly Disagree" to "Strongly Agree". The correlation between having a specific goal and combined ratings of improvement was marginally significant ($r = -.252$, $p = .077$). To further examine this result, managers were dichotomized into one of two categories so that an ANOVA could be performed. Those who rated the item one, two, or three (i.e., "Strongly Disagree", "Disagree", or "Neutral", respectively) were classified as not having a development goal. Those who answered either "Agree" or "Strongly Agree" (i.e., a rating of 4 or 5) were classified as having a development goal.

Table 4.16 presents the results this analysis. There was a significant effect for having a development goal that was in the opposite direction of the prediction ($F = 7.030$, $p = .011$). Managers who reported that they did not have a specific development goal received significantly higher ratings of improvement in their development areas, as compared with managers who reported having a specific development goal. Not only was Hypothesis 7 not supported, but it was also contradicted.

Table 4.16. One-way ANOVA on the Effect of Self-Set Development Goals on Developmental Performance Improvement.

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	1.073	1	1.073	7.030	.011
Within	7.327	48	.153		
Total	8.400	49			

Test of Hypothesis 8

The final hypothesis suggested that managers who rewarded their own achievements would receive higher ratings of improvement in their development areas than non-rewarders. Self-reward behavior was operationalized in two ways. First, managers were directly asked to rate their agreement with the item, "I regularly reward myself for attaining my goals" using the standard five-point agreement scale. Second, managers were asked to mark the reward behaviors they engaged in using a list of eight different reward behaviors. Both measures were used in the test of this hypothesis.

The dependent variable, combined ratings, was not significantly related to either the single reward item ($r = -.102, p = .480$) or the reported reward behaviors ($r = -.155, p = .284$). This was confirmed by the results of the regression analysis shown in Table 4.17; neither reward behavior significantly predicted developmental improvement ($R^2 = .029, F = .698, p = .502$). There was no significant difference between managers who self-reward and those who don't in terms of their ratings of performance improvement in their developmental areas.

Table 4.17. Summary of Simultaneous Regression Analysis for Reward Variables Predicting Developmental Performance Improvement.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	1.253	.187		6.701	.000
Reward Behaviors	-.04685	.050	-.139	-.944	.350
"I regularly reward myself for attaining my goals"	-.02994	.061	-.072	-.489	.627

In summary, none of the hypotheses advanced in this study were supported. However, on three occasions, significant results were obtained - all three in the opposite direction of that proposed in the hypotheses. Interestingly, there were seven research questions that involved the use of combined ratings of improvement on development areas as the dependent variable. These seven questions included eight analytic tests, because one question involved two operationalizations of the independent variable. Of these eight inquiries, six yielded results that were in the opposite direction of the predictions. Contrary to the predictions, career commitment, ability to correctly diagnose underlying performance issues, experience with 360-degree feedback, subject-matter expert-weighted development score, the tendency to self-set goals, and the tendency to self-reward behavior all showed negative correlations with developmental performance improvement. Only self-efficacy and the number of annual development hours reported showed the expected positive relationship with development improvement. Thus, the tendency has been well established for development improvement ratings to be negatively related to the independent variables when a positive relationship was predicted. As noted earlier, the low power associated with the current sample size may factor into the large number of effects which failed to reach significance; nevertheless, the lack of power would not have affected the *direction* of the relationships found in this study.

Post Hoc Analyses

Difficulty of Changing Strengths, Distractors, and Development Areas

The magnitude of improvement ratings for the distractors, strengths and development areas was inconsistent with a priori expectations. Whereas greater improvement was expected for development areas than strengths, the opposite was found to be true. Moreover, the distractor items, which were not included in managers' development plans whatsoever, showed a higher average coworker rating of improvement than the development areas that managers had specifically targeted for their development efforts.

In light of this finding, it was postulated that perhaps coworker ratings of improvement reflected one of two phenomena. First, coworker ratings may have mirrored the difficulty of actually effecting change in these behaviors. For example, perhaps the strengths managers identified were actually easily improved areas, whereas their identified development areas represented behaviors that were more difficult to improve. The distractor items might have been, in fact, moderately difficult to improve.

The second possibility is that coworker ratings might not have reflected the actual difficulty of effecting improvement, but of the observability of the actual change made. It is quite plausible that some performance changes are more likely to be noticed than others. Wohlers and London (1989) for example, found that people perceived some managerial behaviors to be more difficult to observe and rate than others.

Given these two possibilities, a post hoc analysis was undertaken to further explore this issue. Five subject matter experts, consultants experienced in personal development and coaching, were asked to provide ratings on two criteria for each of the behaviors included in the study. The subject matter experts were blind to the categorization of the behaviors, they were unaware that each behavior had been classified as a strength, development need, or distractor.

Using a zero to five scale (0 = cannot be improved, 5 = very easy to improve in 6-12 months), subject matter experts were first asked to rate each behavior in terms of the extent to which the behavior could be improved over a period of six to twelve months when targeted as a development goal. Then, using a four-point scale (0 = impossible to recognize improvement, 4 = improvement will be obvious in 6-12 months), experts rated the same behaviors on the extent to which developmental improvements in each behavior could be observed by others within a period of six to twelve months of the development effort.

Two subject matter experts rated each strength and development behavior; all five experts rated the three distractor items. A one-way analysis of variance was conducted for each set of subject matter expert ratings (i.e., extent to which the behaviors can be improved, extent to which improvement can be observed) using the three performance dimensions rated (i.e., strengths, development areas, and distractors).

The results, shown in Tables 4.18 and 4.19, indicate that there is no significant difference between the three performance improvement dimensions in terms of either the difficulty of achieving improvement ($F = .907, p = .406$) or the likelihood that improvements would be observed by others ($F = 1.619, p = .202$). The expert ratings indicate that the behaviors classified as strengths, development areas, and distractors are about equally difficult to improve. In addition, the expert ratings suggest that it should be about equally difficult for coworkers to observe improvement on behaviors classified development areas as for those classified as strengths or distractors.

Table 4.18. ANOVA on Expert Ratings of the Extent to Which Strengths, Development Areas, and Distractor Behaviors Can Be Improved.

<i>Source</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	1 217	2	0 608	0 907	406
Within	84 422	126	0 670		
Total	85 638	128			

Table 4.19. ANOVA on Expert Ratings of the Extent to Which Improvements in Strengths, Development Areas, and Distractor Behaviors Can Be Observed.

<i>Source</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	2 038	2	1 019	1 619	202
Within	79 308	126	0 629		
Total	81 346	128			

The means of subject-matter expert ratings for the three performance improvement dimensions are shown in Table 4.20. Expert ratings were consistent with coworker ratings of improvement in that the behaviors categorized as strengths were rated as easier to improve and easier to observe when improvement was made, as compared with behaviors classified as development areas. However, the expert ratings were inconsistent with the pattern of coworker ratings in that the experts assessed the distractor items as more difficult to change and to observe improvement, as compared with the development behaviors. Once again, these differences – though interesting – were not significant.

In summary, the results of this analysis did not provide insight into the pattern of improvement ratings made by coworkers for managers' strengths, development needs, and the distractor items. The reason that greater improvement was realized on strengths and distractor areas than on development areas cannot be explained by varying levels of difficulty in improving or observing improvement across these three performance improvement dimensions.

Table 4.20. Expert Ratings of Strengths, Development Areas, and Distractor Items on the Extent to Which Improvement Can Be Made and Observed.

Extent to which behavior can be improved with effort:			Std. Dev.	
	# Items	Mean		
	Strengths	40	3 05	0 62
	Development Areas	86	2 89	0 89
Distractors	3	2 53	0 99	
Extent to which improvement can be recognized by others:			Std. Dev.	
	# Items	Mean		
	Strengths	40	2 93	0 72
	Development Areas	86	2 77	0 81
Distractors	3	2 13	1 21	

Predicting Developmental Improvement

Given that none of the hypotheses regarding variables predicted to affect developmental performance improvement were supported, the summary research question was intensified “What predicts developmental performance improvement?” To answer this question, several key predictors were regressed on the criterion of interest

Returning to the model presented in Figure 2 1, it was previously conjectured that, in order for managers realize improvement in response to their 360-degree feedback, they must effectively progress through a series of tasks. Specifically, improvement is likely to require that managers correctly interpret rating information (i.e., agreement within and across rater groups), diagnose the underlying performance issue indicated by the rating pattern, and identify and enact an appropriate developmental solution – which would require some level of confidence that the correct diagnosis had been made

The correlations among these tasks are shown in Table 4 21. As can be seen, a significant correlation exists between the correct interpretation of rating information and the accurate diagnosis of the underlying cause of performance ($r = .291, p < .05$). Confidence in the accuracy of the diagnosis of cause was significantly related to the accuracy of the diagnosis ($r = .534, p < .01$). Next, a significant correlation was found between the previous task and the next one, the accurate diagnosis of cause was significantly related to the identification of the best developmental solution ($r = .521, p < .01$). However, performance

Table 4.21. Correlations Between Tasks Required for Improvement.

	1	2	3	4	5
1 Interpretation of Ratings	1 00				
2 Diagnosis of Cause	291*	1 00			
3 Diagnosis Confidence	138	534**	1 00		
4 Best Solution	021	521**	266	1 00	
5 Improvement	238	- 287*	- 113	- 187	1 00

improvement was not significantly related to either the interpretation of ratings ($r = .238, p = .05$) or the identification of the best developmental solution ($r = -.187, p < .05$). Moreover, performance improvement demonstrated a significant *negative* correlation with accuracy of diagnosis of cause ($r = -.287, p < .05$).

In a final examination of this issue, the independent variables of ability to interpret agreement information, ability to diagnose performance issues, confidence in the accuracy of the diagnosis, and identification of correct development solutions were regressed on the dependent variable, developmental performance improvement. The results of this simultaneous regression are shown in Table 4.22.

As can be seen in Table 4.22, the regression model proved significant ($F = 2.788, p = .038$). The ability to accurately interpret rater agreement ($t = 2.509, p = .016$) and the ability to correctly diagnose the underlying cause of performance issues ($t = -2.308, p = .026$) significantly predicted performance improvement ratings on managers' development areas. These findings are consistent with the earlier findings regarding the relationship between diagnostic ability and performance improvement, however, the relationship of improvement to the ability to interpret rater agreement information is a new extension.

Table 4.22. Summary of Simultaneous Regression Analysis for Self Managed Development Variables Predicting Developmental Performance Improvement.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
Constant	974	376		2.590	.013
Interpretation of Agreement	181	.072	.355	2.509	.016
Diagnosis of Cause	-.230	.100	-.432	-2.308	.026
Confidence in Diagnosis	.057	.138	.066	.416	.679
Identification of Solution	.0054	.069	.012	.079	.938

CHAPTER V

DISCUSSION

The current research was designed to examine factors relating to managers' development efforts and the ability to effect performance improvement in response to 360-degree feedback. Of particular interest was managers' ability to effectively navigate the requisite steps in a self-managed development model; these steps include correctly interpreting ratings and rater agreement information, accurately diagnosing the likely performance issues indicated by various coworker rating patterns, and implementing effective measures to overcome developmental needs.

Ratings of Performance Improvement

Preliminary analyses revealed several major findings of interest. First, Table 4.5 showed that for all rater groups except self, the amount of improvement observed for managers' strengths, development areas, and the distractor items was significantly correlated across the three performance dimensions. This is presumed to reflect halo, the tendency of a rater to allow an overall judgment of a ratee's performance to bias ratings on specific behavioral dimensions (Cardy & Dobbins, 1994). Nevertheless, for all rater groups except self, coworker ratings of improvement for strengths and development areas emerged as statistically different. Moreover, when the ratings of all rater groups except self were combined, all three performance dimensions (i.e., strengths, development areas, and distractors) proved to be significantly different from one another. Thus, it appears that coworkers did make a distinction between the levels of improvement reported for managers' strengths and development areas, and for the common distractor items.

Equally interesting is the fact that coworker ratings indicated that improvement occurred for *all three* performance dimensions – strengths, development areas, *and* distractors. Whereas participants in this study were encouraged during their leadership development program to work toward increased effectiveness in the use of both their strengths and development areas, the distractor items were presumably not part of their development plans. Each of the strengths and development areas included in this study were contributed by the participating managers in accordance with their individual development plans; however, the distractor

items that were assessed were held constant across all managers. Despite that, a moderate level of improvement was rated to have occurred for managerial performance on the distractor behaviors.

Prior to the inception of this research, it was assumed that the greatest amount of improvement would be found for managers' development areas. This presupposed that managers would have exerted effort to improve in those areas and would realize improvement as a consequence. In fact, 70% of participants either agreed or strongly agreed with the statement, "I have made a strong attempt to use my 360-degree feedback for my development." Conceptually, it seemed logical to assume that, if for no other reason than regression toward the mean, a greater amount of improvement would be reported for development areas (i.e., likely to have originally been rated in the middle to lower end of the individual manager's performance behavior distribution) than for strengths (i.e., likely to have originally been toward the right tail of a manager's performance distribution). In addition, it was theoretically contended that the likelihood of observing a change from less effective to more effective (i.e., as with improvement in a development area) was greater than that of observing a change from highly effective to very highly effective (i.e., as with improvement in an existing strength). Finally, it seemed probable that very little, if any, improvement would be reported for the distractor items that were included, since they were not in any way a part of managers' formal development plans and thus, presumably, managers had not exerted much effort in trying to improve their performance in these areas.

The results of the current research undermined all of these assumptions. With regard to the amounts of improvement observed for strengths and development areas, coworker ratings in fact led to the opposite conclusion. Coworker ratings indicated that managers achieved a significantly greater level of improvement for their strengths than for their development areas. In essence, this finding could be summarized by the adage, "the rich get richer", those who began with a strength were seen to grow even stronger.

In contrast, less improvement was observed for the development areas – even compared with the level of improvement reported for the distractor items. Although it was anticipated that raters would indicate little to no improvement for the distractor items since they were not part of participants' development plans, the ratings showed a level of improvement for performance on the distractor behaviors.

that was between the levels of improvement reported for strengths and development areas. In short, the greatest amount of improvement was found for strengths, an intermediate level of improvement reported for distractors, and the least amount of improvement was reported for development areas – but all three performance dimensions were rated as having been improved. Again, the distinctions in terms of the ratings of improvement were significant across these three performance dimensions.

A post hoc study was designed to determine whether the pattern of improvement ratings across strengths, distractors, and development areas might be explained either by differences in the difficulty of improving the behaviors within each category, or by the extent to which changes in the various behaviors could be observed by others. Executive coaches who were also experienced in designing and delivering 360-degree feedback were asked to provide ratings on both issues for each of the behaviors rated in this study. As shown in Table 4.18, their ratings of difficulty and observability were not consistent with the pattern of improvement ratings provided by coworkers. According to the expert ratings, those behaviors classified as strengths were easiest to improve and to observe improvement for, but improvement for the behaviors classified as distractors was considered the most difficult to achieve and to observe. Thus, the pattern of improvement ratings cannot be explained by expert ratings of the extent to which improvements in the respective behaviors can be achieved or observed.

It might be reasonable to conclude that the pattern of findings in the current research suggests that the ratings made by coworkers did not reflect *change* as much as an overall perspective on managers' performance. The improvement trend mirrors the original, "absolute" ratings of performance, with strengths being rated the highest, distractors toward the middle of the rating distribution, and weaknesses receiving the lowest ratings of the three. In short, the ratings in the current study are "behaving" more like "absolute" ratings (i.e., measured against some internal "standard") than relative ratings (i.e., measures of change).

The tenets of cognitive schema theory might provide support for this contention. Schema theory asserts that people use a collection of knowledge clusters to comprehend and selectively attend to incoming information (Thorndike, 1984). Couclelis (1995) contends that schemas are basic to cognition. "Categorization, perhaps the most fundamental operation of thought, is the result of (rather than the

prerequisite for) the embodied person's growing up functional and conscious in the world of experience" (p. 201). Schemas help to reduce the number of stimuli in the environment to which the observer must attend (Cardy & Dobbins, 1994); they determine what information we attend to and glean from a stimulus-rich environment (Arbib, 1995). Schemas permit the cognitive efficiency of the brain by using existing prototypical features in memory to aid recognition, to comprehend and store new information, and to indicate "which characteristics to notice and what their values are likely to be" (Thorndike, 1984, p. 169).

It is possible that the operation of schemas have influenced the current findings either in the retrieval of information or in the encoding and storage of information (or both). With regard to retrieval, the improvement ratings appear to reflect coworkers' underlying schemas of behaviors for which the target managers were "better" and "worse". The assessment inherent in coworker ratings may reflect the overall categorization of the manager's performance, rather than the amount of change that may have occurred on the specific behaviors in question. The rating task may have prompted the retrieval of schema-based performance information for the target manager. With regard to encoding and storage, the existence of a schema may have made the observer somewhat insensitive in the recognition of change. Assuming that change occurred gradually, which is probable, the schema's operation would direct the attention of the observer to confirm existing perceptions. Changes might not be observed unless proven sufficiently salient to challenge one or more of the prototypical characteristics held within the schema for that manager's performance.

Alternatively, it is possible that the coworker ratings in the current research do, in fact, represent the truth about levels of improvement, and this result could stem from any of several issues. The first possibility reflects a fact that is familiar to anyone who has worked to overcome a performance deficiency: it is difficult to overcome weaknesses, bad habits, etc. Improvement takes time as well as effort. It may well be slow to occur and, if so, the individual pursuing the development needs to be aware of what constitutes a realistic expectation in terms of the time-frame required for change. Second, it is possible that raters were not sufficiently sensitive to the actual level of improvement that occurred. Once again, this could be attributable to schemas; it is possible that the prevalence or salience of the "new" behaviors were insufficient to cross some threshold required to alert the observer to the change.

The skeptic might conclude that these findings indicate that individuals are not adept at perceiving change in performance. If that were true, the obvious question becomes, "Then why make the effort?" An alternative question would be whether impression management is in fact more at issue than actual performance improvement. Since "perception is 99% of reality", the task facing one with a performance deficiency might not be one of improvement so much as altering others' perceptions. This might be done through impression management, by avoiding situations requiring that skill or by surrounding oneself with individuals who are sufficiently talented in that area to conceal the presence of that weakness.

Employing a similar strategy, Drucker (1999) advises individuals to focus their development efforts not on their deficiencies, but on their strengths. "A person can perform only from strength. One cannot build performance on weaknesses, let alone on something one cannot do at all" (page 65). He goes on to question the value of expending energy to improve from incompetence to mediocrity when the same effort could be invested in improving from talented to exceptional performance.

This view is shared by Buckingham and Coffman (1999), who argue that the best managers are those who focus on leveraging the strengths of their direct reports, rather than trying to improve their deficiencies. They go on to say that encouraging managers to try to turn an area of incompetence to one of competence is setting them up for failure. Instead, they encourage individuals to play to their strengths, and to recognize their deficiencies and to minimize their impact. Leveraging other skills or relying on skilled colleagues might constitute possible means of minimizing the impact of a performance deficit.

This philosophy has intuitive appeal, who would have recommended that Einstein spend more time on projecting a professional image rather than physics, or that Michaelangelo focus his efforts on masonry instead of painting?¹

¹ For permission to use this pointed and colorful analogy the author expresses appreciation to her brother, Joseph N. Baumann.

Agreement Among Rater Groups

A central premise in 360-degree feedback contends that there is unique and valuable information to be gleaned from multiple rater groups. An unexpected finding, then, was the high level of agreement among raters. Two analyses justified the combination of all coworker ratings on the basis of agreement. In short, the agreement within and across rater group was sufficiently comparable to allow the treatment of any one group as equivalent to any other. This does not preclude the possibility that unique information is contributed by the individual rater groups, but does concede that the common or shared variance is substantial and is sufficient to permit the treatment of all groups as comparable in their ratings.

The Impact of Career Commitment on Development Activity and Performance Improvement

The first two hypotheses predicted that managers who reported the greatest levels of development activity and showed the most improvement in their development areas would be those who valued their careers above their jobs or organizations. The underlying tenet reflected in these propositions was one of protean career values. The protean career paradigm places responsibility for career management with the individual, much like the free agent phenomenon in professional sports, the protean career in the professional world allows talented individuals to assume control of their own opportunities and to enjoy the benefits of an open job market. Unconstrained by the company loyalty that characterized past generations of workers, the protean career mentality allows an individual to maintain loyalty to self and one's career as the core value driving career-related decisions. Consequently, it would seem that the individual espousing protean career values – placing career commitment above organizational commitment or job involvement – would have the most to gain from development opportunities, it would follow then, that the individuals who most actively pursue development efforts should realize the greatest improvement in performance.

In the current study, managers who placed career commitment above organizational commitment and job involvement fared no better than their organizationally-committed and job-involved counterparts, they neither engaged in more development activities nor achieved greater levels of improvement. It is interesting to note that 78% of the participants in the current study scored highest on the organizational commitment scale, with only 16% scoring highest on the career commitment scale, thus the power to

detect an effect may have been limited. Also of interest is that fact that, of the fifty managers participating in this study, 40% reported being in the early career stage, and 54% reported being in mid-career, although the participants in this study were ideally positioned career-wise to take advantage of the mobility afforded by the protean career mentality, they reported their first loyalty as being to the organization.

This appears to counter the logic of the protean career perspective. There are several viable explanations that merit exploration. First, the host organization in the current study was noted in a recent edition of *Fortune* for having an annual turnover rate of less than 10%. In the article, the company president emphasized the need to foster employee commitment to the workplace. As such, organizational commitment may be a value which this organization takes special effort to attain and retain within its employee ranks.

Second, it is possible that prioritization of values framework (i.e., comparing career commitment, organizational commitment, and job involvement scale scores) does not constitute an adequate surrogate for a cohesive measure of the protean career construct. Given the lack of an existing measure for protean career values, the surrogate attempt was required in the current study.

Third, it is also possible, that the findings of this study are not inconsistent with the protean career mentality. Insofar as the organization proves to be a vehicle for achieving one's career goals, even the protean career-minded individual may espouse organizational commitment. It may be possible that when career goals are being accommodated within an organization, commitment to the organization remains of utmost valence until the returns begin to diminish – at which time the loyalty to career may reassert its dominance and the protean manager will begin to consider other options. This explanation may be tenable within the context of the current organization, where individuals are promoted to management at an early age and advance at an average rate of two-years. Compensation and benefits are reportedly good, possibly even toward the lead in the industry. Thus, younger managers within the host organization for this research may well have their career needs sufficiently met to foster a high level of organizational commitment. The limitations of the current study precluded a clear understanding of the mechanisms operating behind the observed results.

The Relationship Between Ability to Diagnose Performance Issues and Improvement

The third hypothesis predicted that managers who could effectively diagnose performance issues on the basis of coworker ratings would be more likely to realize improvement toward their development goals than those who misdiagnosed the likely causes of ratings. Although the test of this hypothesis yielded significant results, they were significant in the opposite direction of the prediction. Managers who were *less effective* in diagnosing performance issues were *more effective* in improving their development areas. In keeping with the sequential steps posited in the self-managed development model in Figure 2.1, the identification of the correct developmental solution was significantly correlated with the correct diagnosis of performance issues ($r = .521, p < .01$), the proposed precursor in the model. Thus, while there is some evidence for the interdependence of the sequential steps in the self-managed development model, the predicted outcome (i.e., performance improvement) was not realized.

A further examination of this matter revealed that managers who made correct attributions of performance problems were more confident in their diagnoses ($r = .534, p < .01$). It may be possible that those who are less effective in making attributions and are less confident in their skills make a stronger attempt to utilize their feedback – which later results in greater performance improvement. An examination of the correlation between ability to diagnose performance problems and attempt to use the feedback for development revealed a relationship that was non-significant ($r = -.154, p = .291$).

In terms of managers' ability to identify the probable causes of performance deficiencies, the findings of this study provided additional support to the work of Cardy and Dobbins (1994), who argued that performance appraisal typically fails to distinguish between person- and system-variance. In the current study, managers' performance in diagnosing the causes of performance issues represented by the feedback scenarios showed that they had less difficulty recognizing performance problems that were attributable to the person than when the problem stemmed from the situation. Eighty-eight percent of managers in this study were able to correctly determine the cause of performance ratings when the issue was one of treating different groups differently and 86% were able to recognize when skill deficiency was indicated by coworker ratings; however, only 52% correctly identified the underlying cause of performance issues when system factors were to blame.

Whereas the research of Carson, Cardy, & Dobbins (1991) led them to conclude that raters have difficulty differentiating person- and system-causes of performance problems, the current study found that managers themselves may have difficulty differentiating person- from system-attributions when interpreting feedback ratings. Although the number of situations presented in the current research was limited, it appears that managers were generally effective in differentiating which of a variety of person-factors contributed to a performance issue, however, they were less effective in making a determination when performance problems were not attributable to person-factors.

Insofar as the ability to correctly diagnose performance issues is key to implementing an effective solution (Rummler, 1972), the findings of the current research suggests that managers may be ill-equipped to recognize constraints imposed by the system or organizational context. The logical consequent would be that such individuals would be likely to become frustrated by the futility of their erroneously-based improvement efforts. The current study, however, suggests otherwise, the ill-equipped managers outperformed those who recognized situational constraints where developmental improvement was concerned. Perhaps those who lack the ability to diagnose performance issues and lack confidence in those skills seek the guidance of individuals with greater experience or expertise, thereby benefiting not only from the expert input but also from the informal accountability that is inherent in such a tactic. Clearly, the possible explanations posed are purely speculative, this is an area that would benefit from future research.

The Impact of 360-Degree Feedback and Development Experience on Improvement

The fourth hypothesis predicted that prior experience with 360-degree feedback and development activities would be related to greater levels of performance improvement in the development areas. Within an organizational culture that requires self-managed development, it was expected that both prior experience with 360-degree feedback and with development activities would be conducive to improved performance since the interpretation of feedback and the identification of relevant developmental solutions would be required.

Feedback experience was not significantly related to performance improvement, however, it was significantly related to level of commitment exhibited through developmental efforts ($r = .384, p < .01$), the other independent variable examined in this hypothesis. It appears that individuals who have more

experience with 360-degree feedback more readily engage in development activities that require higher levels of commitment to development, perhaps they are less intimidated by the translation of feedback information into subsequent action steps for improvement. Alternatively, the correlation could also be explained by a possible tendency for individuals who are highly development-oriented to have sought or capitalized upon opportunities to receive 360-degree feedback in the past.

In addition, 360-degree feedback experience was also found to be significantly correlated with self-efficacy for managing a developmental response to 360-degree feedback ($r = .307, p < .05$). This finding suggests that as individuals gain experience in receiving 360-degree feedback, they become more confident in their ability to self-manage the development needs that are identified through that process and they show a stronger tendency to engage in developmental activities that require greater levels of commitment. In general, this finding is supported by the extant self-efficacy literature. As Gist and Mitchell (1992) explained, "efficacy judgment changes over time as new information and experience are acquired" (p. 184). In addition, research has found that self-efficacy influences goal commitment as well as choice of activities and tasks toward goal attainment (see Gist and Mitchell, 1992, for a review). Nevertheless, these results suggest that while more extensive 360-degree feedback experience may be related to heightened expectations of success and a greater level of activity, apparently it does not contribute to increased improvement.

The second part of this hypothesis predicted that managers with a stronger history of engaging in development would realize greater improvement. When operationalized as the expert-weighted composite scores reflecting commitment to development, developmental effort was significantly related to improvement. Once again, although the relationship proved significant, it was in the opposite direction of the prediction, those who showed less commitment to their development received higher ratings of improvement. Yet again, these results present something of an enigma. One explanation might suggest that the development activities reflective of greater commitment to development (e.g., requesting a transfer or overseas assignment, taking a college class, networking) are actually less effective in bringing about improvement. According to the expert ratings, the activities reflecting greater commitment were more experiential in nature. Consequently, the qualitative research of McCall, Lombardo, and Morrison (1988)

presents evidence in opposition to the assertion that the development activities reflecting greater levels of commitment are less effective in improving performance. Baldwin and Padgett (1994) drew a similar conclusion: "When managers are asked to describe their most significant learning experiences, they invariably describe on-the-job experiences as having contributed the most to their development" (p. 281).

An alternative explanation might posit that the extensive developmental activities undertaken by managers in the current study were not focused on the development areas they reported. The development goals they reported for this study were generated from an elective, prestigious leadership development program. It is unknown whether or how closely these development goals relate to other performance goals they might have – for example, goals stemming from the formal performance appraisal process. It is possible that managers participating in this study have any number of developmental goals which they are endeavoring to improve, only two of which were represented in this study. Perhaps their improvement efforts are less focused on the development areas reported herein, whereas the reported goals for those showing less investment in development constitute a greater focus on fewer goals – and consequently, greater gains.

The Impact of 360-Degree Feedback and Development Experience on Attempt to Use the Feedback

The two components of the fifth hypothesis predicted that a stronger attempt to use the feedback would be made by managers with more prior experience with 360-degree feedback or those with a stronger history of development activities. The logic behind these hypotheses was that those with greater experience in the two key components of self-managed development would be less intimidated by the application of the feedback for development, thereby making a stronger attempt to use it. Neither component was supported, however, self-efficacy was significantly correlated with attempt to use the feedback.

Relatedly, the sixth hypothesis projected that managers with higher self-efficacy for managing the development process would realize greater improvement in their development areas. Although self-efficacy was significantly positively related with the attempt to use the feedback, it was not related to performance improvement. Those with higher expectations that their efforts would yield success apparently did not realize the improvement they were anticipating.

The Relationship of Performance Improvement to Setting Goals and Rewarding Achievements

Goal setting theory has established that individuals who set clear, specific goals are more likely to realize improvement, and that those who reward achievements are more likely to sustain their performance over time. The seventh hypothesis predicted that managers who had established development goals for themselves would be more likely to realize improvement than those who did not. This hypothesis was not supported. Once again, the test of this hypothesis reached significance but in the opposite direction of the prediction. Managers who reported that they did not currently have a development goal received higher ratings of improvement than those who reported having a development goal at the present time. This undermines the possible explanation argued for hypothesis four, apparently it is not a matter of having fewer, better focused goals that leads to improvement, but having no goals at all.

In the introduction to this research, the relevance of the goal setting literature as applied to the abstract performance expectations surrounding managers was questioned. A critical perspective was taken of the historical use of concrete tasks and specific standards of proficiency (Locke, Shaw, Saari, & Latham, 1981) and lab-based research (Tubbs, 1985), and of the common elements of managerial situations that would impede the typical impact of specific, challenging goals (Locke and Latham, 1994). Caution was encouraged in the application of the extant literature to the typical managerial situation. However, none of these issues were of a nature to have suggested that the greatest improvement would be realized by managers without any goals whatsoever. Whether the current findings are the unanticipated but natural sequitur to concerns addressed here cannot be determined from the present study.

The final hypothesis predicted that managers who reward their own achievements are more likely to realize performance improvement in their development efforts than those who do not. Previous scholars have suggested that self-managed efforts that are to be maintained over time must be reinforced (see Manz, 1986 for a review). In the current study, self-rewarding behavior was operationalized in two ways. First, engaging in reward behaviors was measured through participants' response to the item, "I regularly reward myself for attaining my goals." Second, participants were presented a list of possible reward behaviors and were asked to indicate which, if any, they engaged in. Fifty percent of the participants in this study responded either "Disagree" or "Strongly Disagree" to the self-reward item, only 34% expressed

agreement When it came to identifying rewards they engaged in, 30% of participating managers reported administering self-rewards of time off work, splurging on something fun, doing something special with family or friends, and buying themselves something Eighteen percent reported buying themselves something as a reward, and eight percent said they take vacations Twenty-two percent of manager said they do not administer any tangible rewards but instead feel rewarded by the accomplishment of their goals, and twenty-eight percent said that they structure their work in such a manner as to be rewarding Contrary to the item responses reported above, only ten percent said that they do not self-reward after being asked to complete the rewards inventory

Regardless of the operationalization method, the administration of self-rewards was not related to the improvement of developmental areas There was no significant difference between managers who rewarded themselves and those who did not when it came to realizing improvement as a result of their efforts

Of interest is the finding that about as many managers rely on “natural” or intrinsic rewards – those inherent in the structure or accomplishment of the work – as reported relying on various extrinsic rewards Most of the previous literature did not take the natural rewards into consideration, however, the results of this study suggest that natural rewards may be an equally legitimate classification when measuring self-reward behaviors

The Relationships Among Tasks in the Self-Managed Development Model

A final finding of interest concerns the relationships among the self-managed development variables Model 2.1 depicted a series of sequential tasks that must be effectively met in order for performance improvement to be possible Specifically, the tasks required for self-managed development include the accurate interpretation of ratings information (e.g., agreement within and across rater groups), the correct diagnosis of the likely underlying cause of performance, the effective prioritization of relevant development goals, and the ability to discern and implement an appropriate developmental solution As shown in Table 4.2.1, general support was provided for the progression of this task The accurate interpretation of ratings information was significantly correlated with the correct diagnosis of the underlying cause of the performance issue ($r = .291, p < .05$) The correct diagnosis of the underlying

cause of the performance issue was, in turn, significantly related to the identification of an appropriate developmental solution issue ($r = .521, p < .01$). However, all three variables were *negatively* related to performance improvement, with a significant correlation emerging between diagnosis of cause and ratings of improvement. Taken together, it appears that the ability to effectively navigate the steps required for self-managed development are inversely related to improvement, with a significant effect in the case of diagnostic ability.

Returning to the model, there appears to be a disconnect between the steps presented laterally, and the final step, presented vertically. That is, it appears that coworker perceptions of improvement do not flow logically or sequentially from the self-managed development sequence. This finding is not supported by or explicable from the extant literatures reviewed here, and presents a challenge for future research to either replicate or disprove.

Consideration of the Self-Managed Developmental Response to 360-Degree Feedback

The concerns which gave rise to the current research were both underscored and undermined. To the question of whether managers can effectively navigate the steps required for self-managed development, the answer is affirmative. The managers in the current study were largely effective in interpreting rating information, diagnosing likely causes of performance, and identifying appropriate developmental solutions. Moreover, the findings allayed the concern for whether a self-managed model would allow protean career-minded individuals to pursue goals that better served the individual than the organization; the managers in the current study were highly organizationally-committed and tended to choose as a development priority the goal which represented a key organizational value.

At the same time, the results of the current study were even more dire than anticipated in terms of the lack of information about whether development occurs in response to 360-degree feedback, and how to measure it when it does. The results of the current study might prove discouraging to the manager who has made a strong and earnest attempt to make progress toward his development goals, given that greater improvement was found for generic behaviors that were not a part of the development plan. At present, too little is known regarding the key issue of whether coworkers – i.e., raters – can accurately recognize and rate improvement if and when it does occur. While the dynamics of this crucial issue are being explored

and determined, unheeding practitioners and the managers who use their systems run the risk of drawing some erroneous conclusions regarding the utility of 360-degree feedback programs and of what resultant outcomes can reasonably be expected. In short, the results of this study have realized the greatest fear that compelled this research, while managers are capably and willingly doing their part in self-managing their development, the surrounding system is flawed in such a way as to potentially sabotage the results of their efforts. Until more is known about coworker perceptions and ratings of "truth" in performance improvement contexts, managers can be disappointed and even misled by the change ratings they receive.

Summary

In summary, managers in the current study exhibited a reasonable facility for accurately interpreting 360-degree feedback information, correctly discerning the probable underlying issue indicated by the rating pattern, and identifying an appropriate developmental solution. More specifically, a significant difference existed between managers who effectively differentiated person- and situation-based performance issues. However, an unexpected and inexplicable pattern of performance improvement ratings emerged. The greatest level of performance improvement was reported for areas of pre-existing strength; moreover, the improvement ratings for distractor items - presumably not part of managers' development efforts - surpassed the improvement ratings for managers' development areas.

Perhaps owing to low power, many of the predicted relationships did not emerge as significant. When significant relationships with performance improvement ratings did occur, they were consistently in the direction which favored managers who were less skilled in self-managed development. Specifically, managers who showed the greatest amount of improvement were those who were less able to diagnose performance issues, showed less commitment to development through their development efforts, and who did not have specific development goals.

The findings of the current study encourage caution in the application and practice of 360-degree feedback. Important questions remain regarding the ability to perceive and rate change, and whether development efforts and energies might, in fact, be best served through a focus on leveraging strengths rather than working to address performance deficiencies.

Study Limitations

There are numerous limitations of the current study that need to be addressed

Scales Designed for This Study

As previously mentioned, the scales designed for this study were not thoroughly validated prior to their inclusion in the current research. Time restrictions prohibited an extensive examination of the properties and intercorrelations of the items. In addition, space restrictions on the questionnaire completed by managers prevented the inclusion of additional items, which may have allowed for higher alpha coefficients in some cases. The Development Practices and Values Scale and the Protean Career Values Scale both showed low internal consistency reliability, indicating that the items did not adequately or cohesively tap the constructs they were respectively intended to represent.

Measuring Perceptions of Change

Insofar as true performance change/improvement is not known, it is impossible to determine whether the ratings of change made by coworkers in this study accurately reflect the amount of change made by managers. That managers' performance was seen to improve more in the areas of their strengths than in the areas of their development goals was a surprising finding. It is not known whether managers in fact made greater strides toward improvement with regard to their strengths, whether such improvements may have surreptitiously occurred, whether coworkers may have failed to perceive change that in truth did occur, or whether they treated the task as an absolute rating task rather than a relative one. Thus, while it is possible that change may have occurred that remains undetected by managers' coworkers, it is not possible to determine the extent to which this may have taken place in the present study. It is probable that raters in the current study were unaccustomed to making ratings on a "relative" scale; the typical 360-degree feedback process asks that raters make absolute ratings of performance, so it is unlikely that the raters in this study have much experience in making ratings of *change*. The pattern of findings in the current research suggests as a distinct possibility that either raters don't perceive change when it in fact occurs, or they don't know how to rate it; the distinction cannot be made because of limitations to the design of this study.

Operationalization of Feedback Interpretation Ability

Of central importance to the present study were the three feedback scenarios designed to assess managers' ability to comprehend agreement information, to diagnose likely causes of performance ratings and to identify valuable developmental measures. These measures represent fictitious data, and were designed specifically for the purposes of this study. It is possible that the framing of these scenarios was overly simplistic, and therefore not sufficiently representative of the information managers must interpret *in situ*. Similarly, it is possible that the "static" nature of these scenarios created a bias favoring nothing but cognitive ability, or deductive reasoning skills. As such, performance on the critical dimensions posed by these scenarios may better represent critical thinking skills than an ability to interpret 360-degree feedback information. Insofar as cognitive ability was not assessed in the present study, the possibility of an intellectual bias in performance cannot be ruled out.

Relatedly, because this was a paper task involving fictitious data received by a "colleague", the results may not generalize to the workplace, where the data is real and the "ego" is involved. It is possible that participants in this study were able to diagnose performance issues more objectively than they would in a situation involving their own, real feedback. In reality, managers might make more situational attributions of performance issues in keeping with ego-protection mechanisms or self-enhancing biases, wherein information-processing is distorted in order to maintain a favorable opinion of oneself (Cardy & Dobbins, 1994).

Operationalization of Career Commitment and Organizational Commitment

Of interest to the current research was how managers' values regarding their organizations, jobs, and careers would relate to their performance improvement ratings. The protean career paradigm would suggest that managers today are increasingly loyal to their own careers, and less loyal to the organization than was true in past generations. The current study found that 78% of participants reported the highest level of commitment to their employing organization, with only 16% professing their first loyalty as being toward their careers. These findings were based on participant responses to Mowday et al.'s (1979) measure of organizational commitment, and on Carson et al.'s (1994) measure of career commitment. It is

possible that the constructs of organizational and career commitment as measured by these scales fail to capture the dynamics of the protean career mindset. It is possible that managers possessing the protean career mindset, for example, are highly loyal to their organizations to the extent that the organization is the primary vehicle for achieving their career- or life-objectives, rather than the more traditional attitudes which engendered the loyalty of employees to paternalistic organizations. Similarly, the conventional operationalization of "career" may be outdated, whereas individuals are increasingly expectant of multiple careers over a lifetime; traditional measures define "career" in more singular terms. Thus, one possible limitation of this study is reflected in the absence of a direct measure of protean career values, and the subsequent use of multiple measures that may not adequately tap the evolving construct.

Participation Rate

The exceptionally low rate of participation cannot escape notice. Given that only 50 of 837 managers contacted agreed to participate and returned all necessary materials, it is possible if not probable that those participating in this study differed from their non-participating counterparts in one or more fundamentally significant ways. First a comparison of the demographic characteristics of participants to those of non-participants revealed that the attributes of participants were representative of non-participants, including age, tenure, and race. An exception was found for sex; a disproportionately high number of women participated in this study, as compared with their representation in the overall management.

Beyond that, one obvious characteristic that might differentiate the two groups is that of commitment to development; it seems plausible that those participating in this study were more highly committed to their development and thus more interested in determining what, if any, improvements have been gained through their developmental efforts. An examination of the data showed that participants in this study engaged in anywhere from 9 to 222 hours of development activity annually, with an average of 73 hours ($SD = 50.43$). No comparative statistics are available to determine whether the sample average is comparable to industry- or nation-wide averages. As an aside, however, one participant in the current sample was terminated during the study, so there is at least some evidence that not all of the participants were exceptionally committed to their performance and development.

In summary, it is not entirely possible to know what characteristics might be present in the self-selection bias of participants when compared with non-participants, but they do appear representative of the larger management population in terms of demographics. In addition, there is quite a range in the number of hours spent annually on development within the participating sample, such that range restriction of this nature is not overly probable.

It should be noted that the low participation rate was thought to be attributed, in part, to an extensive, multisource, quarter-long performance appraisal effort that was being conducted within the organization at the same time that the current study was undertaken. Although inevitable, the demands upon managers resulting from the appraisal effort were reported to be substantial, and were cited by numerous non-participants as the reason for declining their involvement in the study.

Generalizability

The generalizability of the findings in this study to other organizations is limited in several aspects. First, the host organization was situated within the financial services/lending industry, it is possible that the current results may not apply to managers of other industries. Second, 40% of the participants in this study represented themselves as early career, 54% categorized themselves as mid-career, and only 6% identified their career stage as late career, consequently, caution should be drawn, in particular, when generalizing the results of this study to managers in the late career stage. Third, the average age of managers participating in this study (34.90 years of age) – and in the host organization as well (under 35 years of age) – is relatively low. The values of these relatively young managers may differ from older managers in a manner that is not captured or represented by the current findings.

Practical Implications

Rating Change

When considering the probable reaction of the manager who has high self-efficacy for self-managed development but realizes little improvement for his/her efforts, it quickly becomes apparent that the persistence of this outcome over more than one repetition of the feedback-development cycle would probably lead to disenfranchisement and/or a learned helplessness response. Because of this, it is especially important that future research and practice clarify whether the improvement expectations

inherent within current 360-degree feedback practices are unrealistic or even faulty in terms of the improvement that can reasonably be effected and/or recognized by others

The ratings of improvement in the current study proved contrary to expectations, and relatively inexplicable within the current design. The dynamics underlying the rating pattern observed – wherein strengths were improved the most, distractor items second most, and development areas the least – are not well understood.

Apart from the well established problems with the reliability of change scores (Cronbach and Furby, 1970), Time 1-Time 2 ratings of performance that deduce change through the repeated administration of the same absolute rating scale over time contribute an equally large number of problems to the assessment of improvement. It is far too common that changes in roles, job responsibilities, raters, coworker expectations, and competitive pressures transpire within a short period of time, making comparisons of sequential ratings akin to measuring apples against oranges. Clearly, more attention needs to be given to this issue before any firm conclusions are drawn regarding the effectiveness of 360-degree feedback or of the subsequent development efforts made by managers.

Finally, the current results call into question previous research that has found and touted improvement in targeted areas without the related ratings such as for strengths or distractor areas that provide some basis of comparison. While the news of improvement in the development areas is undoubtedly pleasant, it loses its appeal when viewed in the larger context of comparative improvement rating information.

Developmental Efforts

On the basis of the improvement ratings provided in the current study, there is reason to believe that the most advantageous focus for developmental efforts is on pre-existing strengths. Coworkers conferred a perception of improvement upon strengths to a significantly greater degree than was true of managers' development areas. If this result generalizes to other populations, managers would be well advised to focus on leveraging their strengths, identifying additional opportunities to apply them. Conversely, the ideal strategy suggested by this model would also include avoiding circumstances that require skills which are ill-developed, or collaborating with others who are more competent in those areas.

Ultimately, it is unrealistic for most people to be wholly competent on all relevant performance dimensions. It may be equally unrealistic to expect that most people can improve performance in any given area, assuming that only a few goals are targeted during one development period. Executive coaches and performance consultants may be well advised to take heed from the example of selection experts, who differentiate between skills that can be easily taught versus those that must be selected for.

Self-Managed Development

The current research suggests that managers are reasonably adept at progressing through the requisite steps in a self-managed development model. As such, the expectation of self-managed development appears tenable. However, extreme caution is urged in the handling of subsequent administrations of multisource feedback. Based on the results of this study, it is imperative that a 360-degree feedback program include systemic support and guidance for the interpretation of subsequent administrations of feedback regarding whether improvement has occurred.

Future Research

There are numerous deficiencies with the current study that lend themselves to suggestions for future research. First, a measure tapping the protean career construct would be of value. The current research employed a values prioritization format to operationalize the protean career construct, in the absence of a reliable scale. The design of the current study precluded determination of whether the predictions of the protean career tenets failed to gain support or whether the current operationalization was hopelessly flawed. Further research in this area would likely permit valuable insights into the dynamics of protean career-driven behaviors, and whether career- and organizational-commitment might exist in a dynamic relationship that fluctuates in response to the utility of the employment situation.

An additional line of inquiry suggested by the current research is whether cognitive schemas tend to "override" or preclude perceptions of behavioral change. In any case, it would be interesting to determine what constitutes a "just noticeable difference" for improvement in behavior. It is conceivable that the threshold might vary according to the nature or even the salience of the behavior in question. It may vary according to the current level of skill that is possessed. Perhaps there is a numerical value involved; it may be that a new or improved behavior needs to be exhibited x number of times before observers become

aware of the change. It may take additional repetitions for observers to become *convinced* of the change. These are interesting questions for further examination.

In addition, it would be interesting to query managers upon receiving their feedback regarding the attributions they make for the probable performance issues indicated by the rating patterns. As suggested earlier, self-enhancement protective biases may lead managers to deny the accuracy of the feedback or to erroneously over-attribute performance problems to external factors. Future research could examine this issue in a real-world setting.

Similarly, it would be interesting to examine managers' choice of developmental priorities within an actual work context. Are prioritization judgments made singularly on the basis of the severity of ratings or on agreement information, or might there be a subjective of value-driven consideration in the decision as well? If values are triggered in the prioritization process, which values come into play and why? Insofar as managers have been criticized for being short-sighted, is it possible that they don't plan far enough out when identifying developmental priorities? If that is the case, how long can a self-managed development model prove effective? Future research might examine questions such as these.

Finally, at the heart of the current research, the question remains of whether self-managed development translates into performance improvement. Future research is needed to further examine and elucidate the conditions under which self-managed development leads to performance improvement.

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APPENDICES

APPENDIX A

MANAGERIAL PERFORMANCE IMPROVEMENT RATING FORM

(LEADERSHIP DEVELOPMENT PROGRAM)
DEVELOPMENTAL 360° FEEDBACK
FOLLOW-UP QUESTIONNAIRE

(HOST ORGANIZATION NAME)

PERSON YOU ARE RATING:

(NAME) has identified you as her:

Direct Report

Background Information:

Please check the box that best represents how long have you have worked with the person identified above

- ☐ 0 – 3 months
- ☐ 4 – 6 months
- ☐ 6 months to a year
- ☐ more than a year but less than two years
- ☐ two years or more

Please use the envelope and one of the mailing labels provided
to return your completed questionnaire no later than
(date).

NOTE TO DIRECT REPORT RESPONDENTS:

The individual named above is participating in a study examining how (the host organization) associates use the 360-degree feedback they received during the (leadership development) program. In exchange for participating in this study, she will receive valuable feedback from coworkers – including you – regarding her professional performance and development.

Thank you for taking the time to complete this brief questionnaire. The individual named above has identified you as a valued coworker with important performance feedback to provide. Your feedback will provide her with important information to ensure her continued success. **It should take approximately 5 to complete this questionnaire.**

As a **direct report** rater, your ratings will be combined with all other direct report responses and averaged together, to maintain confidentiality. The individual you are rating will **not** know what ratings you gave; she will only receive an **average** of ratings from all direct reports on each of the five items below. To further protect your confidentiality, a minimum of three direct report raters is required for this person to receive direct report feedback.

Your colleague is counting on you to provide thoughtful and complete feedback. We appreciate your prompt and considerate follow-through. Please return your ratings **no later than (date)**. Be sure to follow the instructions provided on the last page to return your ratings.

If you have any questions regarding this questionnaire or the research of which it is a part, please feel free to contact either (HR representative) in Corporate Human Resources at (phone number), or the principal investigator of this research, Lauren Baumann, at (phone number).

Questionnaire Instructions

The person you are rating has selected several behaviors to be rated. Your task is to rate the extent to which this person's effectiveness on each behavior has changed during the last (6 months, year, 2 years).

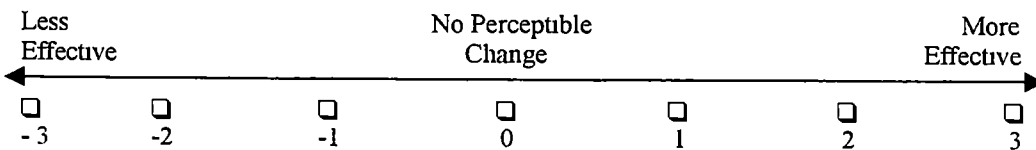
DIRECTIONS: Using the scale provided, please check the box above the number that most accurately describes the recent change in your manager's performance on each behavior. Mark only one box per question.

Example of the Rating Scale:

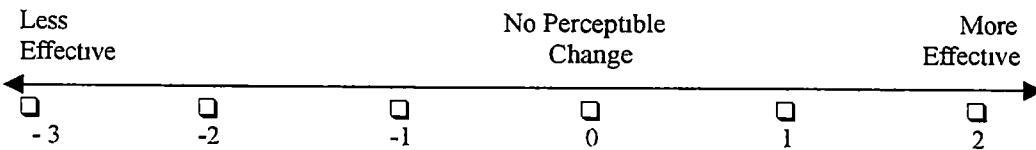
Less Effective	No Perceptible Change					More Effective
☐ - 3	☐ - 2	☐ - 1	☐ 0	☐ 1	☐ 2	☐ 3

DIRECTIONS: Using the scale provided, please check the box above the number that most accurately describes the recent change in your manager's performance on each behavior. Mark only one box per question.

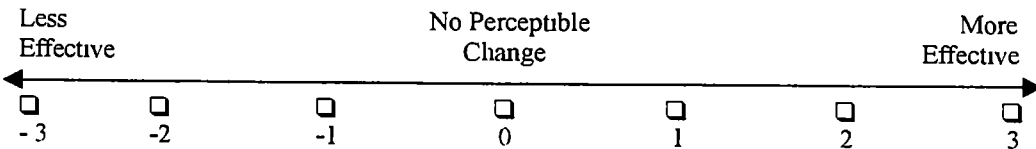
1. Considers the impact of decisions on other people or areas.



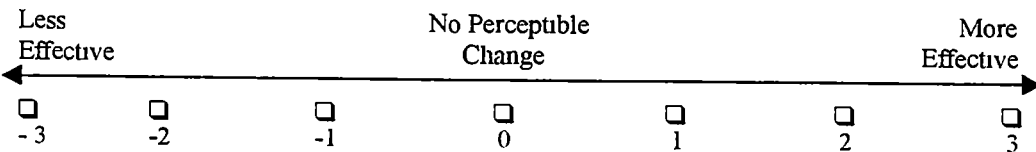
2. Individual participant's first development area.



3. Individual participant's strength to leverage.



4. Ensures that good suggestions are implemented.



Thank you for taking the time to participate in this study.

Options for Returning Your Information to the Researcher:

For your convenience, we have devised several methods for returning your completed information



Return Via Regular Mail:

Please print your completed information and make a copy for your own file Then choose the mailing label you prefer to use and return your completed materials to

Direct Method -

Lauren Baumann

Department of Management

404 Stokely Management Center

The University of Tennessee

Knoxville, TN 37996-0545

This method assures that your responses will be seen only by the researchers at The University of Tennessee Your confidentiality is assured

OR

Indirect Method -

(HR Representative) - Human Resources
(Interoffice mail address)

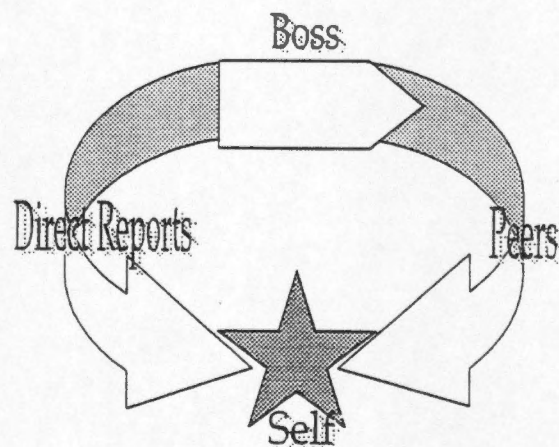
Mark the envelope "UT Study" - she will then forward them unopened in a bulk mailing to Lauren Baumann at UT

This method does not assure that your responses will be seen only by the researchers at The University of Tennessee Your confidentiality is not assured

APPENDIX B

AN EXAMINATION OF MANAGER'S USE OF 360-DEGREE FEEDBACK QUESTIONNAIRE

An Examination of
Managers' Use of
(Leadership Development Program)
360° Feedback



Please complete this questionnaire and return it by (date)
using the envelope and one of the mailing labels provided.

Dear Participant

Thank you for taking the time to participate in this important study of the impact of the (Leadership Development) Program on individual development.

By completing and returning this questionnaire and the 5-item mini-assessment, your name will be entered in the drawing for one of five \$25 gift certificates to local places of interest. Please return both the questionnaire and the mini-assessment in the envelope provided.

Please be sure to answer all items on this questionnaire.

If you have any questions about this study, please contact the principal researcher, Lauren Baumann, at (423) 330-3534 or Lbaumann@utk.edu

Again, your participation in this study is most appreciated!

Options for Returning Your Questionnaire:

For your convenience, we have devised several methods for returning your completed information. With each option, you will receive confirmation once your materials have been received by the researcher. Please select the option that best suits your needs



Return Via Regular Mail:

Please print your completed information and make a copy for your own file. Then use one of the mailing labels provided to mail your completed materials to:

Direct Method -

Lauren Baumann
Department of Management
404 Stokely Management Center
The University of Tennessee
Knoxville, TN 37996-0545
This method assures that your responses will be seen only by the researchers at The University of Tennessee. Your confidentiality is assured.

OR

Indirect Method -

(Internal contact) - Human Resources
(Interoffice Mail Address)
Mark the envelope "UT Study" - she will then forward them, unopened, in a bulk mailing to Lauren Baumann at UT
This method does not assure that your responses will be seen only by the researchers at The University of Tennessee. Your confidentiality is not assured.

PARTICIPANT INFORMATION

Please provide the following information about yourself as accurately as possible

Name _____ Age _____ years

Sex ☐ Male ☐ Female

Race. ☐ African American ☐ Asian ☐ Caucasian ☐ Hispanic ☐ Other

How long have you worked for (this organization)? _____ years

Number of previous employers _____

How long have you been a manager? ____ years ____ months or ☐ I am not a manager

Number of employees currently reporting directly to you _____ or
☐ I don't currently have direct reports

Which best describes your level as a manager? ☐ Tier 4 ☐ Tier 5 ☐ Tier 6 ☐ Tier 7 ☐ Other

What is your current career stage? ☐ Early Career ☐ Mid Career ☐ Late Career

Which best describes your position? ☐ Analyst ☐ Operations Manager ☐ Specialist ☐ Other

What is the highest level of education you have completed?

- | | |
|--|---|
| ☐ Some high school | ☐ High school diploma or GED |
| ☐ Some college | ☐ Associate's degree |
| ☐ Bachelor's degree (B.A., B.S.) | ☐ Some graduate school |
| ☐ Master's degree (M.A., M.S., MBA) | ☐ Doctoral degree (Ph.D.) |
| ☐ Other | |

(LEADERSHIP DEVELOPMENT PROGRAM) PARTICIPATION INFORMATION

Please provide the following information about yourself as accurately as possible.

How many of the (Leadership Development) workshops did you attend? ☐ 1 ☐ 2 ☐ 3

When did you complete the (Leadership Development) program? _____ month _____ year

When did you receive your (Leadership Development) 360° Feedback report? ____ month ____ year

How many times have you received *developmental* (not used for performance appraisal, promotion decisions, pay decisions, etc.) 360° feedback, either within or outside of (host organization)?

- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 or more

What type of preparation did you receive on how to interpret and use your (Leadership Development) 360° feedback?

- | | |
|---|---|
| ☐ Classroom-style training | ☐ Written materials or information |
| ☐ Both training and written information | ☐ Other |
| ☐ I didn't receive <i>any</i> preparation on the interpretation and use of my feedback | |

Please prioritize the following in order of importance to you by numbering them 1-3, with 1 being most important:

- _____ Success in your current position/job
 _____ Success in your current organization
 _____ Career success

Please note that 1) "organization" refers to the company for which you work, 2) "job" refers to your current position within the company, and 3) "career field" means your profession or general occupation

Using the scale shown below, please circle the option that best represents your response to each item

	SD Strongly Disagree	D Disagree	N Neutral/ No Opinion	A Agree	SA Strongly Agree
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					

Please note that 1) "organization" refers to (host organization), 2) "job" refers to your current position within the company, and 3) "career field" refers to your profession or general occupation.

	SD Strongly Disagree	D Disagree	N Neutral/ No Opinion	A Agree	SA Strongly Agree
24 The 360° feedback I received increased my motivation to change specific behaviors back on the job	SD	D	N	A	SA
25 On my 360, my raters were fully capable of accurately assessing my work performance	SD	D	N	A	SA
26 Overall, the results of my 360° feedback increased my awareness of developmental areas	SD	D	N	A	SA
27 I feel very little loyalty to this organization	SD	D	N	A	SA
28 As a result of the feedback I received on the 360 instrument, I am likely to change my management behavior on the job	SD	D	N	A	SA
29 I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful	SD	D	N	A	SA
30 I talk up this organization to my friends as a great organization to work for	SD	D	N	A	SA
31 The 360 program I participated in increased development focused interaction between my supervisor and myself.	SD	D	N	A	SA
32 I would accept almost any type of job assignment in order to keep working for this organization	SD	D	N	A	SA
33 I do not believe that a person must be loyal to his or her organization	SD	D	N	A	SA
34 I am proud to tell others that I am part of this organization	SD	D	N	A	SA
35 I plan to leave (host organization) in the near future	SD	D	N	A	SA
36 I could just as well be working for a different organization as long as the type of work was similar	SD	D	N	A	SA
37 I do not feel "emotionally attached" to this career field	SD	D	N	A	SA
38 I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	SD	D	N	A	SA
39 To me, my job is only a small part of who I am	SD	D	N	A	SA
40 For me this is the best of all possible organizations for which to work	SD	D	N	A	SA
41 If I got an offer for a better job elsewhere, I would not feel that it was right to leave my current organization	SD	D	N	A	SA
42 I find that my values and the organization's values are very similar	SD	D	N	A	SA
43 I think that people these days move from company to company too often	SD	D	N	A	SA
44 My career field is an important part of who I am.	SD	D	N	A	SA
45. This career field has a great deal of personal meaning to me	SD	D	N	A	SA

	SD Strongly Disagree	D Disagree	N Neutral/ No Opinion	A Agree	SA Strongly Agree
46 This organization really inspires the very best in me in the way of job performance				SD	D N A SA
47 I strongly identify with my chosen career field				SD	D N A SA
48 The most important things that happen to me involve my present job				SD	D N A SA
49 I really care about the fate of this organization.				SD	D N A SA
50 I live, eat, and breathe my job				SD	D N A SA
51 Most of my interests are centered around my job				SD	D N A SA
52 I have very strong ties with my present job which would be very difficult to break.				SD	D N A SA
53 Usually I feel detached from my job				SD	D N A SA
54 I regularly reward myself for attaining my goals				SD	D N A SA
55 I consider my job to be very central to my existence.				SD	D N A SA

NOTE: Please skip the following items if you do NOT currently have employees reporting directly to you

56 I very frequently set performance or development goals for my direct reports	SD	D	N	A	SA
57 I regularly reward my direct reports for attaining their goals	SD	D	N	A	SA
58 Overall, I support the 360 assessment and feedback process for my direct reports	SD	D	N	A	SA

DEVELOPMENT HISTORY

59 A *specific* example of a development goal I have set for myself is _____

60 Please indicate the manner in which you reward yourself for making progress toward or accomplishing a goal, achieving an important milestone, completing an important or undesirable task, accomplishing your daily objectives, etc. Please mark all that apply. To reward myself for my performance, I.

- | | |
|--|---|
| ☐ Take time off from work | ☐ I don't engage in rewards of this type - the feeling of accomplishment is all the reward I need |
| ☐ "Splurge" on something fun (i.e., ice cream, shopping, movies, dinner at a nice restaurant) | ☐ I don't engage in rewards of this type - I structure my work so that it is rewarding just to check something off of "the list" |
| ☐ Do something special with family or friends | ☐ I don't reward myself at all |
| ☐ Buy myself something | ☐ Other: _____ |
| ☐ Take a vacation | |
| ☐ Indulge in an activity I usually don't have time for (i.e., golf, a massage, leisure reading) | |

61 On average, I spend about _____ (hours) per year in development or continuing education activities

DEVELOPMENT HISTORY (continued)

62 I engage in development activities (i.e., training, conferences, challenging job assignments) primarily for the purpose of (check all that apply)

- ☐ Maintaining a competent level of performance in my job
- ☐ Staying current on new developments in my area of expertise
- ☐ Trying to maintain an "edge" over my colleagues
- ☐ Increasing my opportunities for promotion within this organization
- ☐ Advancing my career in the direction I have planned
- ☐ Being highly marketable to other competitive organizations in my field
- ☐ I don't engage in development activities

66 Please use the spaces provided to write in the approximate number of times you have participated in each development activity in just the past 24 months. Do not count the same development activity in more than one category. In the past 24 months, the approximate number of times I have participated in each development activity is:

- | | |
|--|--|
| <p>_____ Created a development plan</p> <p>_____ Took a class at a college or university</p> <p>_____ Attended a training class, workshop, or seminar for technical, interpersonal or managerial skills, or for leadership development</p> <p>_____ Attended a professional conference</p> <p>_____ Met with my boss to discuss my development</p> <p>_____ Met with an executive coach</p> <p>_____ Met with my mentor</p> <p>_____ Actively created or sought out professional networking opportunities</p> <p>_____ Participated in a discussion group with colleagues in my career field</p> | <p>_____ Read relevant books, business magazines, or professional journals (estimate the total # of hours per month)</p> <p>_____ Reviewed videos, audiotapes, or books on tape relevant to my development goals</p> <p>_____ Requested a lateral transfer, job rotation, or overseas assignment</p> <p>_____ Requested a challenging job assignment</p> <p>_____ Attended a career fair or expo</p> <p>_____ Voluntarily completed skill/interest assessment inventories</p> <p>_____ Been a member or officer (e.g., president, treasurer) of a professional society</p> <p>_____ Served on the Board of another organization (each year of service = 1)</p> |
|--|--|

64. Based on your experience, which methods have proven most effective for you in your development? (Rank order all that apply): OR ☐ I don't know which method(s) work best for me

- | | |
|--|---|
| <p>_____ Classroom lecture (traditional training)</p> <p>_____ Offsite meetings or activities</p> <p>_____ Challenging assignments/project work</p> <p>_____ Computer-based or multimedia training</p> | <p>_____ Videotapes or audiotapes</p> <p>_____ Group Discussions</p> <p>_____ An executive coach</p> <p>_____ Working with a mentor</p> |
|--|---|

DEVELOPMENT HISTORY (continued)

65 Please select your top three (3) responses to the following question and rank order them (1 = single greatest issue, 3 = third greatest issue). I would engage in development activities more if

- | | |
|---|--|
| <p>☐ I had more encouragement from my manager</p> <p>☐ I had greater financial resources/support</p> <p>☐ I knew what development areas to focus on</p> <p>☐ I knew what resources/activities are available</p> <p>☐ I knew what resources or activities are likely to be most effective for me</p> <p>☐ I thought my efforts would lead to a raise</p> | <p>☐ I thought my efforts would lead to promotion</p> <p>☐ I thought my efforts would lead to a challenging job assignment</p> <p>☐ I had more time</p> <p>☐ I were not planning to retire soon</p> <p>☐ I were planning to stay with this company</p> <p>☐ No matter what, I wouldn't engage more in development activities</p> |
|---|--|

Please go on to the next page . . .

Managers' Use Of 360° Feedback Exercise

Contextual Information for this Exercise

- Assume that you are helping a colleague understand his 360° feedback and use it to create a development plan
- Your colleague is a middle manager with seven years of managerial experience.
- Your colleague has been in his current position for 9 months, and with this company for 3 years
- Because you are a trusted colleague, he has asked for your advice on interpreting and using his 360° feedback. He wants to use your input to create a development plan
- This feedback is used solely for development.

Your task has several components

- 1) Review the items from your colleague's 360° feedback.
- 2) Identify the most likely reason for the ratings
- 3) Provide suggestions for improving each skill
- 4) Recommend which skill should take top priority for your colleague's development plan this year

With this in mind, please review the information below and respond to the questions provided. For each item, the rating scale used by raters to provide feedback was:

- | | | |
|---|---|---------------------|
| 1 | = | Never |
| 2 | = | Almost Never |
| 3 | = | Occasionally |
| 4 | = | About half the time |
| 5 | = | Usually |
| 6 | = | Almost Always |
| 7 | = | Always |

and the number of co-workers who provided feedback was:

Self - 1

Boss - 1

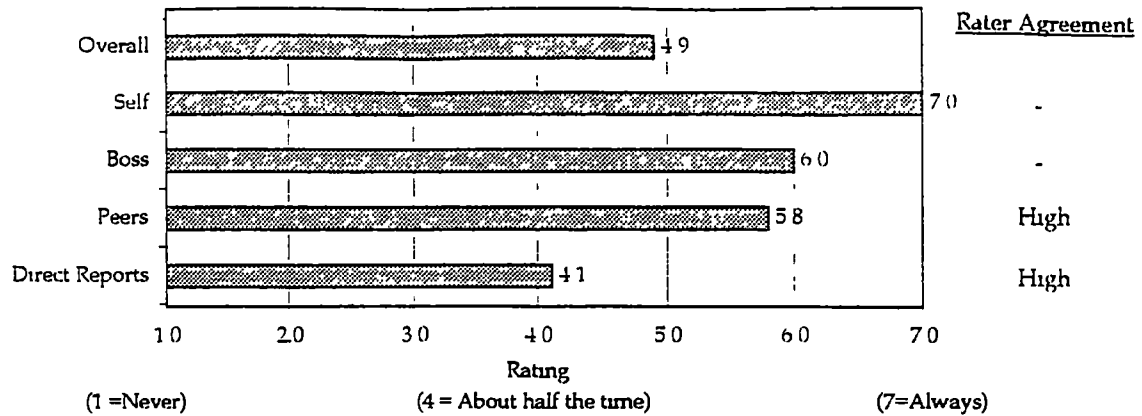
Peers - 5

Direct Reports - 7 (employees who report directly to this manager)

Overall - 13 (all raters except self)

Scenario #1

Treats all people with respect and dignity.



NOTE: Treating people with respect and dignity represents one of your organization's five "Core Values" – behavioral characteristics that are highly valued by your organization as key to its success. Your colleague has something of a reputation for treating his direct reports poorly, and he has had a number of complaints filed against him in the past by his direct reports. As a peer, your colleague has always treated you with respect, but you have at times observed him treating his direct reports in a manner that you didn't approve of. Moreover, it is quite unusual in your organization for direct reports to make complaints against their managers. This skill area is a key consideration in all promotion decisions within your company.

66. How would you best describe the agreement among raters? Please mark only *one* response.

- | | |
|--|---|
| ☐ Nearly all of the raters agree on how frequently he demonstrates this skill | ☐ The rater groups agree with each other on how frequently he demonstrates this skill, but raters <i>within</i> each group don't agree |
| ☐ Raters <i>within each group</i> agree on how frequently he demonstrates this skill, but there is a lack of agreement <i>across</i> rater groups | ☐ There is little agreement on how frequently he demonstrates this skill. |
| ☐ I can't begin to interpret the agreement information. | |

67. Which explanation best identifies the likely cause of the ratings shown above? Please mark only *one* response.

- | | |
|--|---|
| ☐ This manager appears to have a <u>skill deficiency</u> | ☐ This manager appears to treat some <u>individuals</u> differently |
| ☐ This appears to be mostly a <u>communication</u> issue. | ☐ This manager probably does not understand the expectations of him that are held by his various rater <u>groups</u> |
| ☐ This manager may have <u>personality</u> differences with some co-workers | ☐ Some <u>raters may be unaware</u> of his efforts |
| ☐ The issue stems primarily from the <u>situation</u> , not the manager | ☐ I have no idea what the real issue behind these ratings might be |
| ☐ This manager appears to treat different <u>groups</u> of co-workers differently | |

68. How confident are you that you correctly identified the likely cause of these ratings?

- | | | | |
|--|--|--------------------------------------|--|
| ☐ Completely unsure-
need more information | ☐ Mostly Unsure | ☐ Fairly Sure | ☐ Absolutely sure I correctly
identified the cause |
|--|--|--------------------------------------|--|

69 What about the information above led you to your conclusion about the cause of the ratings?
Please check all that apply:

- | | |
|--|--|
| ☐ Just looking at the <u>self</u> -rating | ☐ Comparing the levels of agreement <u>between</u> the different rater groups |
| ☐ Just looking at the ratings from this manager's <u>boss</u> | ☐ Looking at the agreement of individuals <u>within</u> each rater group |
| ☐ Just looking at the ratings from this manager's <u>peers</u> | ☐ Looking at a combination of ratings and agreement |
| ☐ Just looking at the ratings from this person's <u>direct reports</u> | ☐ Past experience |
| ☐ Comparing the <u>self</u> -ratings with <u>others'</u> ratings | ☐ Instinct |
| ☐ Comparing the ratings of <u>boss</u> , <u>peers</u> , and <u>direct reports</u> | ☐ Just a wild guess, really |

70 What corrective steps or actions would you suggest that your colleague take to address this performance issue?
Please rank order all that apply, with 1 being the most important step for this manager to take:

- | | |
|---|---|
| ☐ Disregard the results since not everyone felt this was a problem. | ☐ Focus on being more consistent in the way he treats his co-workers |
| ☐ Try to communicate more clearly | ☐ Take a class to better understand how his personality affects others. |
| ☐ Talk with his coworkers to clarify their expectations of him. | ☐ Try to change the situational factors or constraints that are causing this issue |
| ☐ Work on improving the skill through classes, workshops, books, mentor, etc | ☐ No corrective action is required |

71 Briefly explain your reasons for suggesting this developmental step or action _____

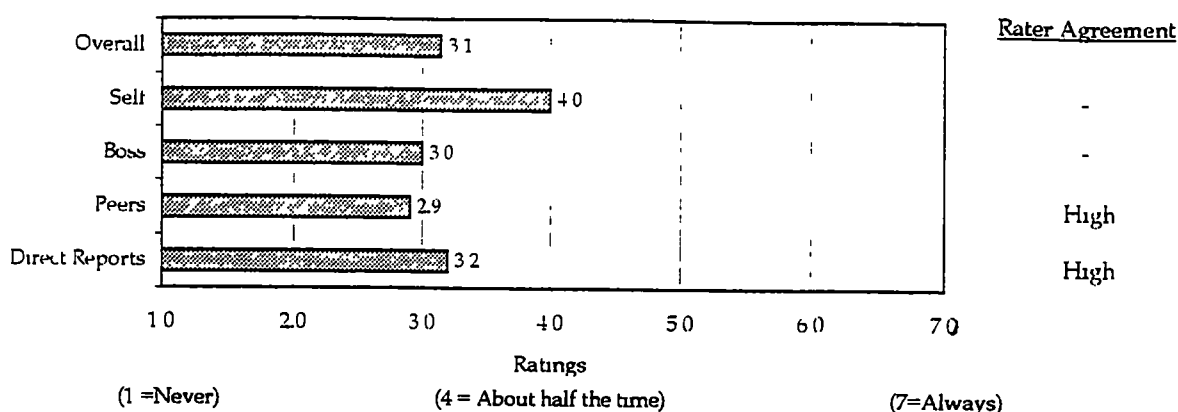
72 Do you believe that this skill area should be a top priority for your colleague's development plan for the year?

- | | | | | |
|-------------------------------|--|--------------------------|--|---------------------------|
| ☐ | ☐ | ☐ | ☐ | ☐ |
| Definitely Not a top priority | Rather Unimportant, not a top priority | Indifferent | Important, but not really a top priority | Definitely a top priority |

Please go on to Scenario #2



Scenario #2 Creates "win-win" solutions when disagreements with others arise.



NOTE: This item represents a very important managerial skill - one that could impede your colleague's career if left unaddressed, or heighten his visibility if mastered. Your colleague has told you in the past that he is uncomfortable with conflict and he's never sure how to handle it. Because of his considerable expertise, your colleague is accustomed to having people accept and adopt his recommendations with little or no disagreement or debate. This skill area is an important determinant of managerial success, no matter what organization a manager is working for.

73. How would you best describe the agreement among raters? Please mark only *one* response.

- ☐ Nearly all of the raters agree on how frequently he demonstrates this skill.
- ☐ The rater groups agree with each other on how frequently he demonstrates this skill, but raters *within* each group don't agree
- ☐ Raters *within each group* agree on how frequently he demonstrates this skill, but there is a lack of agreement *across* rater groups
- ☐ There is little agreement on how frequently he demonstrates this skill.
- ☐ I can't begin to interpret the agreement information

74. Which explanation best identifies the likely cause of the ratings shown above? Please mark only *one* response.

- ☐ This manager appears to have a skill deficiency
- ☐ This manager appears to treat some individuals differently.
- ☐ This appears to be mostly a communication issue.
- ☐ This manager probably does not understand the expectations of him that are held by his various rater groups
- ☐ This manager may have personality differences with some co-workers.
- ☐ Some ratets may be unaware of his efforts
- ☐ The issue stems primarily from the situation, not the manager.
- ☐ I have no idea what the real issue behind these ratings might be
- ☐ This manager appears to treat different groups of co-workers differently

75. How confident are you that you correctly identified the likely cause of these ratings?

- ☐ Completely unsure - need more information
- ☐ Mostly Unsure
- ☐ Fairly Sure
- ☐ Absolutely sure I correctly identified the cause

76. What about the information above led you to your conclusion about the cause of the ratings?
Please check all that apply.

- | | |
|--|--|
| ☐ Just looking at the <u>self</u> -rating | ☐ Comparing the levels of agreement <u>between</u> the different rater groups |
| ☐ Just looking at the ratings from this manager's <u>boss</u> | ☐ Looking at the agreement of individuals <u>within</u> each rater group |
| ☐ Just looking at the ratings from this manager's <u>peers</u> | ☐ Looking at a combination of ratings and agreement. |
| ☐ Just looking at the ratings from this person's <u>direct reports</u> | ☐ Past experience |
| ☐ Comparing the <u>self</u> -ratings with <u>others'</u> ratings | ☐ Instinct |
| ☐ Comparing the ratings of <u>boss</u> , <u>peers</u> , and <u>direct reports</u> | ☐ Just a wild guess, really |

77. What corrective steps or actions would you suggest that your colleague take to address this performance issue?
Please rank order all that apply, with 1 being the most important step for this manager to take.

- | | |
|--|--|
| ☐ Disregard the results since not everyone felt this was a problem | ☐ Focus on being more consistent in the way he treats his co-workers |
| ☐ Try to communicate more clearly | ☐ Take a class to better understand how his personality affects others. |
| ☐ Talk with his coworkers to clarify their expectations of him. | ☐ Try to change the situational factors or constraints that are causing this issue. |
| ☐ Work on improving the skill through classes, workshops, books, mentor, etc. | ☐ No corrective action is required. |

78 Briefly explain your reasons for suggesting this developmental step or action: _____

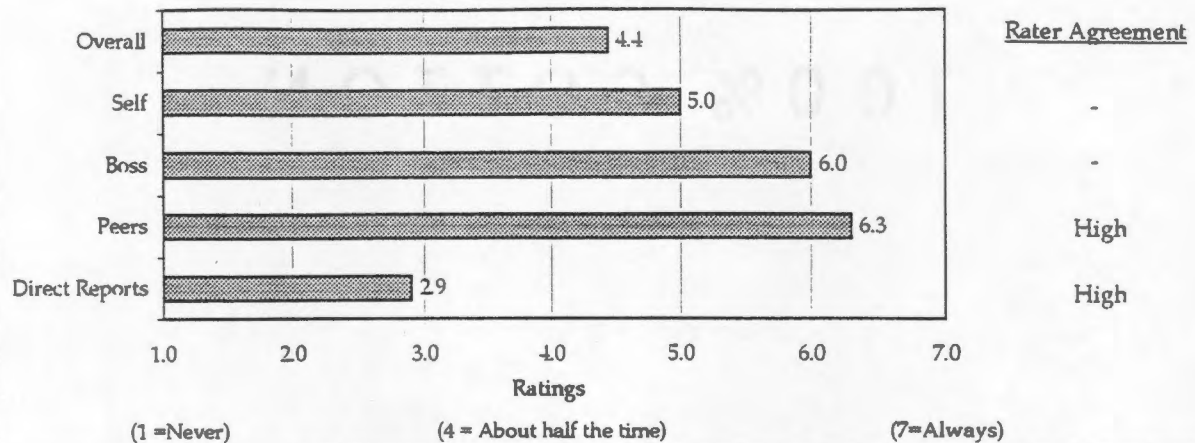
79 Do you believe that this skill area should be a top priority for your colleague's development plan for the year?

- | | | | | |
|-------------------------------|--|--------------------------|--|---------------------------|
| ☐ | ☐ | ☐ | ☐ | ☐ |
| Definitely Not a top priority | Rather Unimportant, not a top priority | Indifferent | Important, but not really a top priority | Definitely a top priority |

Please go on to Scenario #3



Scenario #3

Effectively implements change when change is needed.

NOTE: This item taps a critical aspect of your colleague's current position. Your colleague's current work unit is badly in need of reform, but has a long history of complacency and protecting the "status quo". The two former managers in this position were both transferred due to their inability to stand up to the direct reports your colleague inherited; over the past few years, these direct reports have proven themselves to be highly opposed to change of any kind. After an intense selection process, your colleague was chosen for this position by his current boss and peers because of his strong reputation and track record as an effective change agent (he was once named "Change Agent of the Year" by his employer). This skill dimension represents one of the two main areas on which your colleague's performance will be evaluated at year end.

80. How would you best describe the agreement among raters? Please mark only *one* response.

- ☐ Nearly all of the raters agree on how frequently he demonstrates this skill.
- ☐ The rater groups agree with each other on how frequently he demonstrates this skill, but raters *within* each group don't agree.
- ☐ Raters *within each group* agree on how frequently he demonstrates this skill, but there is a lack of agreement *across* rater groups.
- ☐ There is little agreement on how frequently he demonstrates this skill.
- ☐ I can't begin to interpret the agreement information.

81. Which explanation best identifies the likely cause of the ratings shown above? Please mark only *one* response.

- ☐ This manager appears to have a skill deficiency.
- ☐ This manager appears to treat some individuals differently.
- ☐ This appears to be mostly a communication issue.
- ☐ This manager probably does not understand the expectations of him that are held by his various rater groups.
- ☐ This manager may have personality differences with some co-workers.
- ☐ Some raters may be unaware of his efforts.
- ☐ The issue stems primarily from the situation, not the manager.
- ☐ I have no idea what the real issue behind these ratings might be.
- ☐ This manager appears to treat different groups of co-workers differently.

82. How confident are you that you correctly identified the likely cause of these ratings?

- ☐ Completely unsure-need more information
- ☐ Mostly Unsure
- ☐ Fairly Sure
- ☐ Absolutely sure I correctly identified the cause

83 What about the information above led you to your conclusion about the cause of the ratings? Please check all that apply

- | | |
|--|--|
| ☐ Just looking at the <u>self</u> -rating | ☐ Comparing the levels of agreement <u>between</u> the different rater groups |
| ☐ Just looking at the ratings from this manager's <u>boss</u> | ☐ Looking at the agreement of individuals <u>within</u> each rater group |
| ☐ Just looking at the ratings from this manager's <u>peers</u> | ☐ Looking at a combination of ratings and agreement |
| ☐ Just looking at the ratings from this person's <u>direct reports</u> | ☐ Past experience |
| ☐ Comparing the <u>self</u> -ratings with <u>others'</u> ratings | ☐ Instinct |
| ☐ Comparing the ratings of <u>boss</u> , <u>peers</u> , and <u>direct reports</u> | ☐ Just a wild guess, really |

84. What corrective steps or actions would you suggest that your colleague take to address this performance issue? Please rank order all that apply, with 1 being the most important step for this manager to take:

- | | |
|--|---|
| ☐ Disregard the results since not everyone felt this was a problem | ☐ Focus on being more consistent in the way he treats his co-workers |
| ☐ Try to communicate more clearly | ☐ Take a class to better understand how his personality affects others |
| ☐ Talk with his coworkers to clarify their expectations of him | ☐ Try to change the situational factors or constraints that are causing this issue |
| ☐ Work on improving the skill through classes, workshops, books, mentor, etc. | ☐ No corrective action is required |

85 Briefly explain your reasons for suggesting this developmental step or action _____

86 Do you believe that this skill area should be a top priority for your colleague's development plan for the year?

- | | | | | |
|-------------------------------|--|--------------------------|--|---------------------------|
| ☐ | ☐ | ☐ | ☐ | ☐ |
| Definitely Not a top priority | Rather Unimportant, not a top priority | Indifferent | Important, but not really a top priority | Definitely a top priority |

87 If you had to prioritize among these three development needs, which two (2) of these areas would you recommend that your colleague focus on for his development plan this year? Rank order your top two choices (1=most important, 2=second most important):

- _____ Treats all people with respect and dignity
- _____ Effectively creates "win-win" solutions when disagreements with others arise
- _____ Effectively implements change when change is needed

88 Please *briefly* explain the reason for your recommendation _____

Thank You for taking the time to participate in this important study!

Please complete your five-item assessment now.

Once you have completed both the questionnaire and the five-item assessment, please follow the directions on page 2 to return your completed materials to the researcher.

VITA

Lauren B. Baumann is a native of Edgewood, Kentucky, the youngest of six children born to Norbert J. and Clare B. Baumann. Owing to her parents' value for and commitment to education, she attended parochial schools through college. During high school, Lauren immensely enjoyed her participation in the Kentucky Governor's Scholars program, a summer program that truly challenged her to make a commitment to scholarship. She went on to graduate with honors from Notre Dame Academy, an all-girls high school in Park Hills, KY. She then studied Psychology at Thomas More College in Crestview Hills, KY, on a full academic scholarship. During college, Lauren took part in numerous academic, social, and leadership organizations. She was a member of Psi Chi and Delta Epsilon Sigma honor societies before graduating with honors in 1991.

Lauren moved to Knoxville, Tennessee, in the summer of 1991 to undertake her graduate studies in Industrial and Organizational Psychology. In her first experience away from home, Lauren quickly grew to love the warm and friendly people of "the South", as well as the gorgeous scenery in the foothills of the Smoky Mountains. As a graduate student, Lauren benefited from a great diversity of developmental opportunities; she quickly found her passion as a trained assessor and role player with the Tennessee Assessment Center (TAC). After achieving a leadership role with TAC, her interests evolved to include an executive coaching position as the Director of the Personal Development Program for The University of Tennessee's Executive MBA Program.

After two years of executive coaching, Lauren pursued an internship at Lincoln National Life Insurance Company in Fort Wayne, IN. Her internship afforded the opportunity to collaborate in the design and delivery of a company-wide 360-degree feedback program. At the end of her internship, Lauren assumed the position of Director of the Lincoln Management Institute, a corporate university serving more than eight-hundred managers within the Lincoln Financial Group family of companies. Although Lauren grew a great deal through the challenges of that role and those provided by her boss and mentor, she decided to return to Knoxville to pursue the completion of her dissertation, the results of which are before

you Lauren received her Ph D in Industrial and Organizational Psychology from The University of Tennessee in August, 2000

Upon completing her degree, Lauren returned to her native Kentucky and continues to pursue career opportunities in management and executive development in the nearby city of Cincinnati, Ohio Outside of her career, Lauren plans to spend time with her thirteen nieces and nephews, who are the joy of her soul In addition to exploring spontaneous adventures with the young ones, Lauren enjoys reading, roller-blading, attending theatrical productions, spending time with friends, and shopping ahead for Christmas Her future plans include spending many wonderful hours making up for lost time on the sidelines of the soccer fields, in the baseball stands, at gymnastics competitions, and in the audience at piano recitals, class plays, band competitions, and drill team performances