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MANAGERIAL FEEDBACK SEEKING BEHAVIOR IN RELATION
TO FEEDBACK DISCREPANCIES, SOURCE ATTRIBUTES,
AND GOAL CHARACTERISTICS

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DEDICATION

This dissertation is dedicated to my mother and father, Norma and Timothy Mogan.

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ABSTRACT

Historically, feedback has primarily been studied as an organizational resource, due largely to the performance-improving effects of feedback. Recently, however, researchers have suggested that feedback may also serve as an individual resource for employees. Specifically, it has been suggested that individuals within organizations may actively seek feedback to help them attain their personal goals. Although employee feedback seeking behavior is, to date, a relatively new area of inquiry, research has shown that employees' feedback seeking behavior is related to such factors as goal value and importance, and negative performance beliefs. Other factors that would seem to be related to individuals' feedback seeking behavior include the discrepancy of prior feedback, attributes of feedback sources, and characteristics of the performance goal.

The present study was designed to investigate the relation of discrepancy in prior feedback, source attributes, and goal characteristics to managers' overall feedback seeking behavior and their feedback seeking behavior and reliance on two feedback sources (i.e. their supervisor and their subordinates). It was hypothesized that the discrepancy between managers' self feedback ratings and ratings given to them by a source (i.e. their supervisor and subordinates) would be positively related to

their subsequent feedback seeking behavior. In addition, it was hypothesized that various goal characteristics and source attributes would be positively related to feedback seeking behavior, and would moderate the relationship between discrepancy in prior feedback and feedback seeking behavior.

Subjects were 153 middle level managers in a large governmental agency who had participated in a developmental workshop, during which they received feedback relating to various performance dimensions from their supervisor, subordinates, and self. At the end of the workshop, subjects selected developmental performance goals. A survey questionnaire three months after the workshop was used to assess source attributes, goal characteristics, and feedback seeking behavior in relation to each subject's most important developmental goal.

Analyses of managers' responses indicated an overall moderate level of feedback seeking behavior pertaining to their performance on their developmental goal. In addition, feedback seeking from subordinates was just as frequent as feedback seeking from the supervisor. Contrary to expectations, discrepancy between self and others' feedback ratings was not related to subsequent feedback seeking behavior, and no strong moderators of this relationship were found. As hypothesized, the goal characteristics of importance, commitment, and uncertainty

were positively related to overall feedback seeking behavior (across all sources). In addition, the source attributes of subordinate credibility, power, and availability were positively related to managers' seeking and reliance on their subordinates for feedback, and the attribute of supervisor credibility was related to feedback seeking and reliance on the supervisor. These results and the results from additional analyses were discussed, as were suggestions for future research of feedback seeking behavior.

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CHAPTER I

INTRODUCTION

Within the last decade, increasingly more attention has been placed on feedback research in the organizational behavior literature. This increased attention is due in large part to a growing recognition that feedback is a valuable resource. While the literature offers various definitions of feedback, at its most basic level feedback may be defined as evaluative information regarding past behavior (Bourne, 1966; Ilgen, Fisher, & Taylor, 1979). Feedback provides information regarding individuals' progress toward meeting their goals, which may include both personal and organizational goals. As such, feedback appears to be valuable information for both the individual and the organization.

Traditionally, past research has primarily focused on feedback as an organizational resource, due to the performance-improving effects of feedback (Ashford, 1983; Chapanis, 1964). Research with this focus has mainly conceived of feedback as a unidimensional concept, or necessary "tool" which practitioners can use to increase employee performance (Ashford & Cummings, 1983). Much research having this utilitarian focus is found within the literature domains of motivation, performance

appraisal, training, leadership, and group processes (Greller & Herold, 1975; Nadler, Cammon, & Mirvis, 1980).

In contrast to previous feedback research which has emphasized the organizational value of feedback, recent researchers have focused on the value of feedback for individual employees. These researchers have suggested that individuals actively seek feedback as an informational resource useful for meeting their own personal goals (Ashford & Cummings, 1983). This active feedback seeking affects the amount and type of feedback individuals have at their disposal to use in modifying, monitoring, and attaining personal goals. Ultimately, individuals' feedback seeking and use may also affect their attainment of goal-related outcomes such as performance and satisfaction (Ashford, 1983; Ilgen, Fisher, & Taylor, 1979).

Due to the impact of individual feedback behavior on goal outcomes, research to understand individuals' feedback seeking behavior in organizations has increased (Ashford, 1986; Watson, 1986). This research suggests that factors that seem to be related to feedback seeking behavior may include goal value and importance, negative performance beliefs, and performance uncertainty (Ashford, 1986; Ashford & Cummings, 1985; Larson, 1986).

Other factors which would seem to be important in understanding individuals' feedback seeking behavior and

use of feedback information may be the source and message of the feedback information. In a model of the individual feedback process, Ilgen et al. (1979) suggested that characteristics of the feedback source and message play a large role in determining the extent and manner in which individuals interpret, accept, and use feedback to alter behavior. As such, it would seem logical that characteristics of the feedback source and message may also affect individuals' seeking of feedback in relation to their goals.

Some research on the components of individuals' feedback environments has in fact investigated feedback source and message factors (Herold & Parsons, 1985). This research suggests that individuals obtain feedback from a variety of sources in their organizational environment (Greller & Herold, 1975; Herold & Parsons, 1985a), that sources and feedback messages differ on important feedback characteristics (Herold, Liden, & Leatherwood, 1986), and that individuals tend to rely on certain sources more than others (Greller, 1980; Greller & Herold, 1975; Hanser & Muchinsky, 1978; Watson & Grubbs, 1985). In effect, individuals differentiate among feedback sources and messages, and this differentiation may affect the nature of the feedback they use to monitor their behavior, adjust

performance, and obtain desired outcomes (Herold & Parsons, 1985a).

An important factor which may affect an individual's use and differentiation of feedback sources and messages is the extent to which the message may be discrepant from the individual's own perceptions. If feedback from a particular source is discrepant with an individual's own perceptions, he/she may react and use this feedback differently than if the feedback was congruent with self perceptions (Ilgen, Fisher, & Taylor, 1979). Likewise, discrepant feedback information may influence individuals' later feedback seeking behavior (Ashford, 1986), which may influence their subsequent performance and satisfaction.

The influence of discrepant feedback and feedback from various sources on an individuals' subsequent performance would seem to be particularly important to investigate within a formal performance appraisal context. In many organizations, individuals receive performance or goal-related feedback in a yearly performance appraisal session with their supervisors. This information is often conveyed to employees to assist them in changing their performance to be more in line with organizational goals. If individuals receive conflicting messages from various sources, they may need to personally resolve these discrepancies in order to make adjustments in their future performance. In some cases, they may need to seek

additional information on their goal progress from various sources in order to monitor their improvements. As such, the discrepancy of feedback messages and the source of feedback may affect an individuals' later feedback seeking behavior, including the frequency with which they seek feedback, the source they rely on, and the strategies they use to obtain information on their goal progress. Given this, research investigating and documenting feedback discrepancy effects seems warranted.

The present study was designed in an attempt to explore how source, goal, and message discrepancy factors may be related to individuals' feedback seeking behavior. The current study investigated how receiving discrepant feedback messages from various sources may affect individuals' subsequent feedback seeking behavior and reliance on those sources for further feedback information. Specifically, the amount, sign, and source of discrepant feedback, perceived source attributes, and goal characteristics were investigated in relation to subsequent feedback seeking behavior.

Previous individual feedback and goal process models (cf., Ashford & Cummings, 1983; Campion & Lord, 1982; Ilgen, Fisher, & Taylor, 1979) guided the investigation of feedback seeking behavior. The following discussion proceeds from a review of research pertaining to individual

feedback processes in organizations. Subsequently, the focus of the present investigation on the relation of message discrepancies, perceived source attributes, and individual goal characteristics to feedback seeking behavior is discussed, and specific hypotheses are outlined.

REVIEW OF LITERATURE ON FEEDBACK IN ORGANIZATIONS

The basic premise underlying the present research is that feedback is an important resource for individuals in organizations. Feedback information is useful for individuals in their quests to meet and modify personally held goals. Recent research has, in fact, acknowledged the value of feedback to individuals by suggesting that individuals proactively seek feedback in relation to their goals (Ashford & Cummings, 1983). While preliminary research has started to explore factors relating to individuals' feedback seeking, more research is needed to investigate how individuals proactively seek and attend to feedback information from various sources in their attempts to monitor, modify, and meet their goals.

At its most basic level, feedback can be defined as evaluative information about past behavior (Bourne, 1966). While feedback has been recently recognized as an important resource for individuals, feedback has traditionally been recognized as an important resource for organizations because it improves performance (Ammons, 1956; Annett, 1969; Chapanis, 1964). The value of feedback as an important resource for organizational leaders and practitioners has been documented by research in the areas

of performance appraisal, training, motivation, leadership, and group processes (Nadler, Cammon, & Mirvis, 1980).

Much of the feedback research from an organizational perspective has focused on explaining feedback's positive effects on performance (Ashford & Cummings, 1983). For example, Payne and Hauty (1955) suggested that feedback serves both to direct behavior and as an incentive for behavior, and Vroom (1964) has suggested that feedback serves directing, learning, and motivating purposes. In addition to this research which focuses on the performance-improving effects of feedback, organization behavior research has more recently examined feedback as both an individual and organizational resource (Ashford, 1983).

Several researchers have suggested that individuals' use of feedback is a complex psychological phenomenon (Ashford, 1986; Ilgen, Fisher, & Taylor, 1979; Larson, 1984). In an individual's organization environment, feedback exists or can be obtained in a variety of ways and from a variety of sources (Ashford & Cummings, 1983; Herold & Parsons, 1985). Moreover, feedback may often vary or be inconsistent among sources, due to the unique perspectives different sources have of the individual's behavior (Greller & Herold, 1975). In addition, before an individual can use feedback information, he/she must first obtain and perceive it, accept it, and desire to respond to it (Ilgen et al., 1979). Various factors, such as the sign

of the message, and power and credibility of the source, most likely influence the steps involved in an individual's perception and subsequent response to feedback. In line with this, it is likely that individuals pay differential attention to (i.e. weight differently) messages from various sources (Ilgen et al., 1979). Research is needed, however, to document these suggested processes by which individuals interpret, obtain, and use feedback information from various sources.

Research is particularly needed which focuses on individuals' use of discrepant information from various sources to monitor their goals. While individuals' knowledge of and reliance on feedback sources in their organizational environments has been investigated by some feedback researchers, individuals' interpretation and use of feedback which is discrepant with their own performance assessments has yet to be investigated. The present study explores the relationship between receipt of discrepant performance information and individuals' subsequent feedback seeking behavior and feedback source reliance.

In order to set the stage for an investigation of discrepant feedback effects, several basic streams of research in the feedback literature are reviewed in this chapter. These research perspectives all address various issues relating to individuals' use of feedback. One such

feedback research perspective is that of control theory and motivational goal-setting (Campion & Lord, 1982). This perspective recognizes the integral role of feedback in individuals' goal-setting and -monitoring, and serves as a framework for the present study of individual feedback use. Another research framework which ties in to the goal-feedback perspective is research investigating individual feedback seeking behavior, and factors which affect it (Ashford & Cummings, 1983). The basic premise of this research is that individuals proactively seek feedback relating to goals which are important to them. Another research perspective suggests a process explaining how individuals use feedback messages to influence their goals and behavior (Ilgen, Fisher, & Taylor, 1979). Finally, feedback environment research (Herold & Parsons, 1985) is useful in suggesting relevant dimensions of feedback messages and sources in individuals' organizational environments. After reviewing these various feedback research perspectives, specific hypotheses and research questions pertaining to the present study are presented.

Feedback Research From a Control Theory and Goal Setting Perspective

Control theory and goal setting research explicitly recognize the process link between feedback and goals (Ashby, 1956; Weiner, 1948; Powers, 1973). The idea that

feedback is potentially useful information for individuals striving to optimally meet their goals serves as an underlying premise for the present study's investigation.

Control theory was derived from research by cybernetic theorists (Weiner, 1948), who define feedback as "information about the actual performance or actions of a system which is used to control future actions of a system" (Weiner, 1948 p. 23). More specifically, feedback is described as information pertaining to gaps, or discrepancies, between the actual levels of system parameters and the referent, or goal, levels of system parameters (Powers, 1973).

Recently this cybernetic perspective has been applied to the individual in motivation theory and goal-setting research. Articles by Campion and Lord (1982) and Lord and Hanges (in press) present a control system theory of individual motivation. In Campion and Lord's (1983) dynamic control system model, an individual obtains feedback from a sensor function, which constantly monitors the environment. This sensor function yields a feedback signal, which is then compared to the referent, or goal state. Any gap (or error) between the sensed information and the goal state creates a self-correcting motivation. When a discrepancy gap between the actual and goal state is detected, the individual may decide to correct the error

cognitively by changing the referent goal, or behaviorally by changing the behavior output. This decision depends in part on the level of commitment the individual has to the goal.

Lord and Hanges (in press) expand upon previous work in control theory by making specific propositions about components of human motivational control systems. For example, they propose that goal/feedback gaps, or discrepancies, are "crucial determinants of motivation and behavior" (p. 12). Given the importance of the presence of both goals and feedback to motivation, they propose that individuals will engage in spontaneous goal setting when goals are absent, and feedback seeking behavior when goals are present.

✓ Various research in the goal-setting area also focuses on goal-feedback links and related parameters. For example, Locke (1980) and Locke et al. (1981) argue that feedback improves performance through goals in that feedback helps individuals translate goals into performance. In line with this, additional research by Bandura and Cervone (1983) and Erez (1977) has shown that both goals and feedback must be present for substantial increases in performance to occur. Additional goal-setting research has indicated that feedback may be linked to goals and future performance by its influence on goal acceptance

and persistence decisions (Erez & Kanfer, 1983; Erez & Zidon, 1984; Kim, 1984).

Related to the purpose for the present study, control theory and goal setting research suggest that individuals use feedback information when choosing, accepting, monitoring, persisting in, and modifying their goals. This perspective is useful when studying the processes of individuals' use of feedback in organizations, since feedback is conceived of as information helpful to individuals in their evaluations of their goal achievements. More research is needed, however, to more fully understand how individuals use feedback in their organizational environments to influence their goals. Particularly of interest in the present study is an investigation of how individuals use and seek information from feedback sources to monitor their goals, and how the characteristics of their goals influence this process.

Since feedback is useful information for goal-directed individuals, it is likely that individuals desire and proactively seek feedback. While goal-setting research has not explicitly investigated individuals' active seeking of feedback in relation to their goals, control theory is certainly amenable to this added focus. For example, in Campion and Lord's (1982) description of the sensor function it is possible to conceive of the individual as actively seeking feedback from the environment in order to

compare performance to goals. In addition, Lord and Hanges (in press) postulate that individuals actively seek feedback when goals are present. This idea that individuals sometimes proactively seek and process feedback information in relation to their goals is an integral focus of the present study. Recent research investigating individual feedback seeking is therefore discussed below.

Literature Pertaining to Feedback Seeking Behavior

An underlying premise of the present research study is that individuals are proactive in the processes by which they obtain, interpret, and use feedback information. This premise is suggested in Ashford and Cummings' (1983) article on feedback processes, which proposes the need to study the active feedback seeking behavior of individuals in organizations. They suggest the study of individual feedback seeking will aid in understanding individual behavior in organizations and how managers in various situations may improve the performance of their employees. Since feedback is important information for individuals striving to optimally meet goals, it is important to study the parameters of individuals' feedback seeking behavior in organizations to understand how they perform and get along in their organizational environments.

Model of the Feedback Seeking Behavior Process

Ashford and Cummings (1983) point out that individuals have, for the most part, been studied as passive receivers of feedback, and their active role in the feedback process has been ignored. They present a model of the feedback seeking process, which consists of several components (see Figure 1). These components and Ashford and Cummings' (1983) discussion of the model are reviewed below.

Feedback Seeking Motivation. One component of the feedback seeking process is the individual's motivation to seek feedback. Individuals in organizations can be seen as existing within an environment containing many kinds of information, one of which is feedback about their performance (Hanser & Muchinsky, 1978). In general, feedback is a valuable resource for individuals in helping them to meet their various goals; thus, individuals may be motivated to seek this resource for any of a number of reasons. Ashford and Cummings (1983) suggest several motivations for feedback seeking, the most general of which is to create a sense of competence. White (1959) has suggested that individuals have a need to attain some sense of competence in, and interact effectively with, their environment. Since feedback gives information pertaining to how one's behaviors are perceived and evaluated, it is a useful resource for understanding the environment and

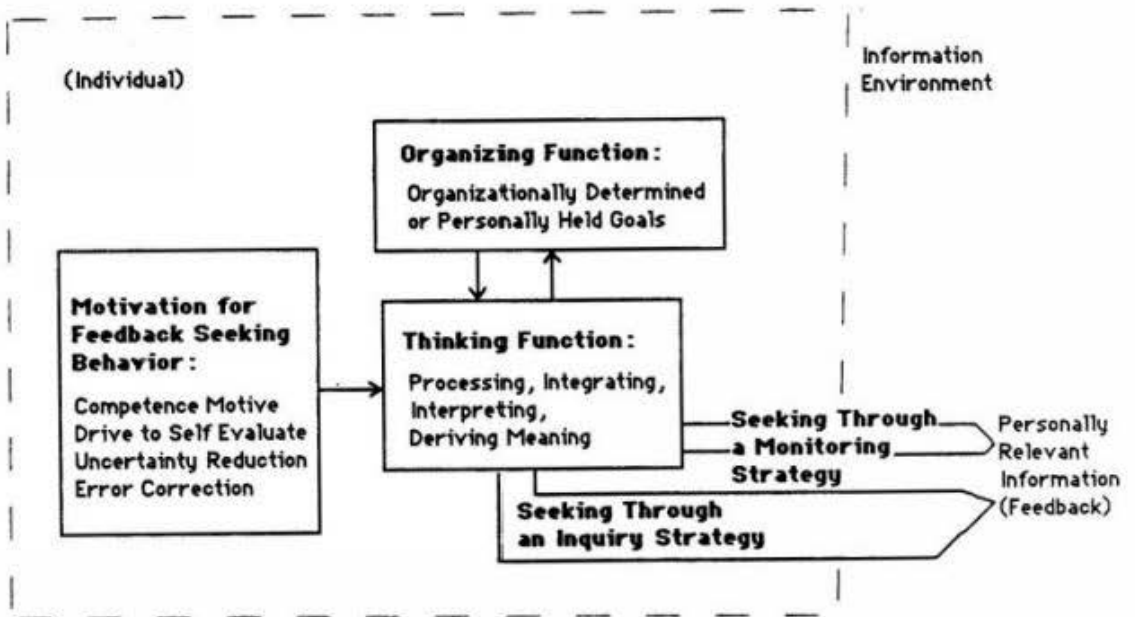


Figure 1. Feedback Seeking Behavior Process (Ashford & Cummings, 1983).

making self-evaluations. Although obtaining feedback information about the appropriateness of one's behavior does not guarantee a sense of competence, it is necessary information for developing competence feelings. Thus, individuals are motivated to seek feedback in order to develop feelings of competence and control in their environments. Ashford and Cummings (1983) suggest that this motive would be particularly operative in new or changing environments.

Another motivation for feedback seeking, similar to a competence motive, is the drive to self evaluate. Feedback information is useful in helping an individual acquire self-knowledge and determine various aspects of a self-concept. In developing one's self concept, symbolic interactionist theorists assert that "one's self-concept is a reflection of one's perceptions about how one appears to others" (Shrauger & Schoeneman, 1979, p. 549). Thus, feedback from others and one's perceptions of this feedback can be seen as an important part of one's self-concept formulation.

A motivation which may interact with individuals' drive to self-evaluate is that of ego-defensive motivation. While feedback from others is useful in developing one's self-concept and feelings of competency, literature pertaining to ego-defensive motivation suggests that in certain situations individuals may be motivated to avoid

feedback, rather than seek it (Swann & Read, 1981). Since feedback gives evaluative information about the self, individuals may be motivated to selectively attend to positive information, or avoid/ cognitively distort negative feedback information, in order to maintain a positive self-image (Ashford, 1986 (b); Friend & Gilbert, 1973; Jones & Gerard, 1967; Miller, 1976; Swann & Read, 1981; Zuckerman, Brown, Fox, Lathin, & Minasian 1979).

Another motivation for seeking feedback is to reduce uncertainty. Feedback information has the potential to reduce an individual's uncertainty about (1) the evaluation of his/her behavior, and (2) the appropriateness of that behavior for meeting goal(s) (Ashford, 1983; Berlyne, 1966; Jones & Gerard, 1967). Certain organizational situations may engender more uncertainty than others, such as organizations undergoing drastic change, or ones in which there are many ways to achieve outcomes. In these situations, the standards for what is considered good performance may be unclear, and thus, the feedback evaluation of whether an individual's performance is meeting standards may also be unclear. Thus, to the extent that individuals feel uncertain about the evaluation and/or appropriateness of their behavior, they will be motivated to seek feedback. Indeed, a certain amount of uncertainty

must be present in order for feedback to be valued and sought (Ashford & Cummings, 1983; Berlyne, 1966).

Another motivation individuals may have for seeking feedback is that of error correction. Feedback can give information pertaining to the amount and types of errors in goal-directed behavior (Bourne, 1966). Thus, if an individual has not received sufficient feedback about the errors and appropriateness of behavior aimed at achieving a valued goal, he/she will be motivated to seek this feedback in order to correct errors and bring behavior in line with goals.

Organizing Function. Besides the motivation to seek feedback, another component of Ashford and Cummings's (1983) feedback seeking model is what is termed the "organizing function". This function consists of the goals an individual holds, which may be organizationally determined or personally held goals. In the feedback seeking model, the goals in the organizing function serve to direct individuals' motivations and efforts to seek feedback from the information environment.

Thinking Function. The cognitive processing component of Ashford and Cumming's (1983) feedback seeking model is termed the "thinking function". This function consists of an individual's interpreting, integrating, and deriving meaning from the information environment, and is affected by the individual's goals and motivation to seek

feedback. This thinking function in turn affects the goals held, and the strategy used to seek feedback.

Feedback Seeking Strategy. An individual may use two types of strategies to seek feedback. One strategy, that of inquiry, involves directly asking others for their evaluations of one's behavior. Another strategy, that of monitoring, involves paying attention to and interpreting information in the environment. Monitoring may take the form of (1) reflective appraisal, which is monitoring others' reactions to one's behavior, or (2) comparative appraisal, which involves comparing one's behavior to others'.

Each feedback seeking strategy has various costs associated with it, depending on factors in the situation. These costs are categorized as effort costs, face loss costs, and inference costs. Effort costs refer to the amount of effort required to get feedback information. In general, the amount of effort required by each seeking strategy depends on various situational factors. For example, Ashford and Cummings (1983) posit that the physical effort required by an inquiry strategy is usually greater when feedback sources are less available, feedback sources are not familiar with the seeker's behavior, and the behavior itself is complex and multifaceted. On the other hand, the cognitive and attentional effort required

by a monitoring strategy is greater when the situational context to be monitored is ambiguous.

Another type of cost associated with seeking feedback is face loss cost, or the risks associated with acquiring feedback information. In general, an inquiry strategy inherently involves more potential face loss costs than a monitoring strategy, because inquiry is a public event, subject to the interpretations of others. This is particularly true if the feedback to be received is negative.

Another feedback seeking cost is the level of inference needed to interpret feedback information. A monitoring strategy inherently involves inference costs in that an individual using this strategy must infer evaluative feedback information from the behaviors of others and cues in the environment. On the other hand, an inquiry strategy requires inferences pertaining to the interpersonal aspects of the inquiry situation; for example, during inquiry the seeker may need to interpret the motives of the feedback giver in order to judge the accuracy of the feedback given (Fedor, Buckley, & Eder, 1987).

To summarize Ashford's (1983) model of feedback-seeking in organizations, individuals are hypothesized to use two strategies of feedback-seeking to obtain valued information from the organization feedback environment. An

individual's use of these two strategies, either monitoring or inquiry, is dependent on the costs of seeking, motivation for seeking, goals held, and the individual's interpretation of these factors.

Research on Feedback Seeking Behavior

Research in the feedback seeking area has so far focused on hypothesizing when individuals will seek feedback. The research has also incorporated a proactive feedback seeking perspective into other models of individual feedback processes. In an investigation of various predictive variables of feedback seeking behavior, Ashford (1983; 1986) found the following variables to be positively related to frequency of both inquiry and monitoring feedback seeking strategies: value of feedback, amount of received feedback, and negative beliefs about performance. On the other hand, organizational tenure was negatively related to the frequency of inquiry and monitoring feedback seeking. In addition, the following variables were positively related to the value of feedback: goal importance, uncertainty, and job tenure. Ashford (1986) asserts that a possible explanation for the negative relationship of tenure to feedback seeking is that the cost to one's self-image (i.e. face loss costs) engendered by seeking feedback is greater for longer-tenured employees. That is, longer tenured employees do not wish to appear

unsure of their performance. It may also be that longer-tenured employees have learned to rely more on their own interpretations (self feedback) for feedback information.

In another study investigating feedback seeking behavior, Ashford and Cummings (1985) investigated the ability of both personal variables (tenure, job involvement, and tolerance for ambiguity) and organizational variables (role ambiguity and contingency uncertainty) to predict overall feedback seeking behavior. They found that job involvement, role ambiguity, and perceived contingency uncertainty were positively related to feedback seeking behavior, while tenure was negatively related to it. In addition, tolerance for ambiguity moderated the relationship between role ambiguity and feedback seeking behavior, and the relationship between contingency uncertainty and feedback seeking behavior.

Research in the feedback seeking area to this point has not directly investigated the choices individuals make regarding from whom to seek feedback. Research has also not examined the impact of message discrepancies from sources on individuals' subsequent feedback seeking behavior. However, research indirectly addressing these areas has recently been presented. For example, Ashford (1986 b) suggests a model of self assessment which investigates the accuracy of self assessment formations in

relation to others' assessments. Her model presents antecedent problems of self assessment, self assessment difficulties, and self assessment outcomes. Antecedent assessment problems include gathering potentially conflicting (or discrepant) information, obtaining accurate information (possibly negative) without ego damage, and presenting/maintaining a positive self-image when seeking feedback information. Self assessment difficulties include inadequate feedback seeking (e.g. attention to incorrect sources and/or relevant dimensions and cues), and interpreting feedback correctly. Self assessment outcomes include perceived discrepancy between self and others' assessments, attention to discrepancies, efficacy expectations, aspiration levels, and persistence, effort, ability, and success in reaching goal. Her model addresses the concepts of feedback sources and attention to discrepancies in relation to "accuracy" of self-assessment, which is defined as lesser or no discrepancy between self and others' assessments. The study proposed here differs from Ashford's (1986b) perspective by not focusing on the issue of self-assessment accuracy. Rather, a more basic issue of individuals' attention to/seeking of feedback from sources in relation to prior discrepant feedback from those sources is addressed.

Another study which examines one source of feedback seeking (the supervisor) and possible reasons for seeking

feedback from this source has been recently presented by Larson (1986). Larson explores the relationship between employees' feedback seeking and the performance feedback they receive from their supervisors. He suggests that a supervisor is an important and valuable source of feedback for individuals in organizations, and may be the object of individuals' feedback seeking attempts for various reasons. Besides seeking feedback for evaluative information to use in assessing their own performance, an individual may seek feedback from a supervisor after s/he has assessed his/her own performance as poor, in order to improve or maintain a positive impression with the supervisor. That is, an individual may use an inquiry feedback seeking strategy to manage or manipulate the impression a supervisor has of him/her. The idea behind this strategy is that seeking feedback will give an impression of effort, and an opportunity to disclose reasons or extenuating circumstances for poor performance. Thus, Larson's study suggests that individuals may self-assess their performance often or regularly, and may seek feedback from other sources both to help in their own self-assessment formation, and for other reasons such as impression management. The present study examines individuals' feedback seeking behavior from sources in relation to the prior feedback they receive, but does not directly examine

individuals' reasons (e.g. impression management) for seeking the feedback.

While existing research has investigated variables which help predict feedback seeking, more research is needed to describe and investigate individuals' seeking and use of feedback from various sources in the feedback environment in relation to individual goals. In their article, Ashford and Cummings (1983) raise several research questions pertinent to the present study: "Which parts of the information environment are more fruitfully monitored?... Which sources will be relied upon?" (p. 393). In addition, Ashford (1986) queries: "If two messages are discrepant, which has more weight when individuals draw conclusions about their performance? Do they resolve discrepancies in favor of self-generated feedback or in favor of feedback volunteered by others?" (p.482). Questions similar to these regarding individuals' feedback seeking behavior from sources giving varying messages are investigated in the present study.

In sum, the focus on the individual as an active seeker and processor of feedback information in order to meet individual goals is a central one for the present study, which investigates individual feedback seeking and source reliance in relation to discrepancy in prior feedback messages from sources. In order to lend further background to the present investigation, a review of

research from a feedback process perspective is useful. This perspective yields insight into the process by which feedback information influences individuals' goals and subsequent behavior. In addition to research from a feedback process perspective, research from a feedback environment perspective is useful in delineating the characteristics and types of feedback sources and messages available and used by individuals in organizations. Therefore, research on the individual feedback process and the feedback environment is reviewed below.

Feedback Research From a Process Perspective

In a seminal review article on feedback in organizations, Ilgen, Fisher, and Taylor (1979) present a model of the individual feedback process. They view feedback as multidimensional in nature, and define it as "information about appropriateness of past performance" (p. 351). Their feedback process model uses a general communication framework to describe how a sent feedback message may influence individual behavior. While their model does not explicitly recognize the individual as a proactive agent in the feedback process, it can be revised to do so. Figure 2 presents Ilgen et al.'s (1979) feedback process model.

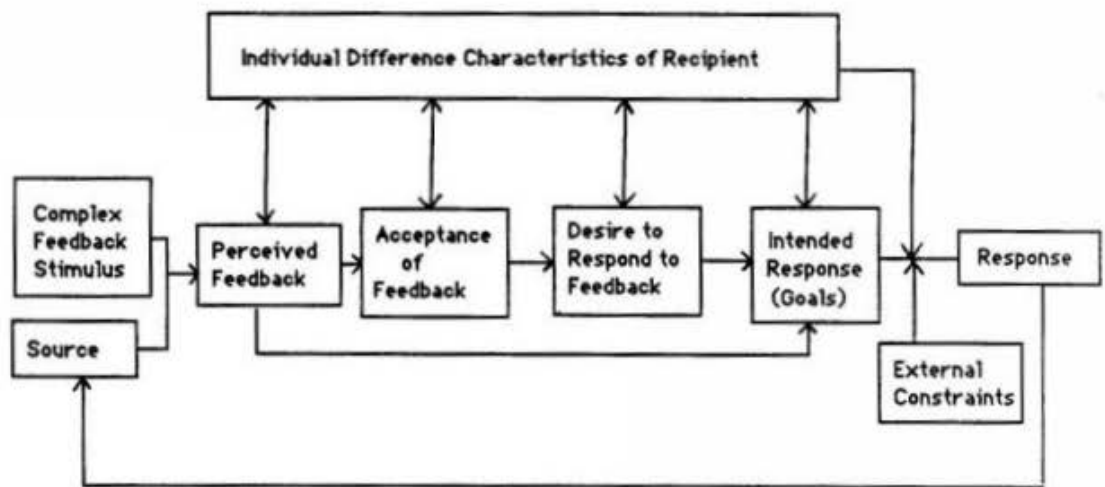


Figure 2. Model of the Effects of Feedback on Recipients (Ilgen, Fisher, & Taylor, 1979).

In Ilgen et al.'s (1979) model, an individual receiving a feedback message from some source must perceive, accept, desire to respond, and intend to respond to the message before using it to influence behavioral goals. The model also postulates that external constraints, individual differences, and past responses affect the process by which feedback influences individual behavior. They further delineate characteristics of the feedback source, message, and recipient which affect various stages in the individual feedback process, and their discussion of this research is reviewed below.

Source

Ilgen et al. (1979) classify feedback sources into three categories: (1) self judgments regarding performance, (2) individuals besides oneself, such as supervisors, co-workers, subordinates, salespersons, and customers, who are in a position to evaluate performance, and (3) the task environment or feedback available from the task itself. They also suggest two attributes pertaining to these sources which affect individuals' feedback processes: credibility and power. Credibility may be defined as the perception that a source is trustworthy and has the expertise to evaluate performance. Power may be defined as control over rewards and sanctions which are important to the recipient. Regarding source credibility, they note

that in general feedback from a more credible source is perceived more accurately, and is more likely to be accepted and responded to. Regarding source power, they suggest that in general feedback from a more powerful source is perceived more accurately, and leads to greater intention to respond than feedback from a less powerful source.

Message

Another important component which affects the individual feedback process is the feedback message itself. In general, the usefulness of a feedback message relates to its information value and the functions it serves, such as helping direct an individual's behavior and helping to motivate behavior by providing reward information. Ilgen et al. (1979) delineate various message characteristics which affect the feedback process, such as timing, sign, frequency, specificity, consistency, and informational value. In general, feedback is more accurately perceived when the feedback message is positive, frequent, and is not interfered with. Relating to acceptance, feedback messages which are positive, consistent, and specific facilitate the acceptance of feedback. Feedback messages which are positive, noncontrolling, and of higher informational value generally facilitate the desire to respond to feedback.

Recipient

Numerous recipient characteristics may affect the individual feedback process at various stages. The major recipient variable affecting feedback perception is the individual's frame of reference (indexed in relevant research by various personality variables such as locus of control, social anxiety, and self esteem) with which he or she interprets the job environment, and the consistency of the source and message with this frame of reference (Baron, Cowan, & Ganz, 1974; Shrauger & Rosenberg, 1970; Smith & Sarason, 1975; Weiss, 1977).

Relating to feedback acceptance, Ilgen et al. (1979) review research suggesting that individuals with an internal locus of control, and individuals who are younger, may be more likely to accept feedback (Feather, 1968; Meyer & Walker, 1961).

Regarding desire to respond to feedback, Ilgen et al. (1979) review personality research and suggest that several individual difference measures may indicate need states which suggest the type of feedback which may help meet those needs. In general, individuals high in internal needs which can be fulfilled by task performance itself (such as those high in need for achievement or independence, self esteem, and internal locus of control) need or prefer feedback which conveys a sense of competence

and/or control (Baron & Ganz, 1972; Shrauger & Rosenberg, 1970; Steers, 1975). This type of feedback may sometimes be more likely to come from internal (self or task), rather than external (others) feedback sources. On the other hand, individuals with needs which can be satisfied by factors external to the task (such as those high in need for affiliation, and having external locus of control) may attend more to feedback's indications of extrinsic rewards.

Specific questions which have not been addressed by research pertaining to the Ilgen et al. model include those with an active feedback seeking perspective and those focusing more extensively on perceived source and goal characteristics. For example, how is feedback from a source related to future feedback seeking behavior from that source? How do source characteristics relate to feedback seeking behavior and reliance on particular feedback sources?

The present study investigates individuals' seeking of feedback from sources in relation to source attributes and prior discrepancy in messages from those sources. Research pertaining to feedback environment components has specifically investigated source and message characteristics and dimensions in individuals' work environments. This research is helpful in suggesting which feedback sources and messages are most attended to by

individuals. Therefore, the feedback environment research is reviewed below.

Research Pertaining to Feedback Environment Dimensions

In order to investigate and describe how discrepancies in feedback messages from various sources are related to individuals' later feedback seeking behavior and source reliance, it is useful to review the dimensions, types, and rated importance of sources and feedback messages available to individuals in their organizational environments. Research pertaining to feedback environment dimensions has helped to more fully describe types of feedback messages and sources. Basically, researchers in this area view the workplace as an "information environment" (Hanser and Muchinsky, 1978), in which two valuable types of information are available for the employee: (a) appraisal (feedback) information, which helps an individual know how well he/she is performing, and (b) referent information, which helps an individual know what is required to perform successfully (Greller & Herold, 1975).

Findings from feedback environment research have yielded insights into the types, dimensions, and utility of various feedback sources. For example, Greller and Herold (1975), in an early study of feedback sources, suggested four basic categories of feedback sources. The first of these, which they termed "other", consists of people who

know the individual, such as supervisors, subordinates, coworkers, clients, and students. Another category, the organization, consists of such things as salary, personnel, and performance information or data. A third category, the task, consists of speed, quality, or condition characteristics of task output. Finally, the self category consists of one's own thoughts and feelings about one's performance, or "a sense that one's actions do or do not 'feel right'" (p. 245) or deviate from a usual pattern.

Greller and Herold (1975) postulated that two factors affect the weighting or importance an individual attaches to various sources: (1) the individual's idiosyncratic decision style, and (2) source attributes. The authors investigated the perceived informativeness attached to five general feedback sources, and source attributes related to this perceived informativeness. They found that for appraisal (feedback) information, the five sources rated most informative were in order as follows: (1) self (rated most informative), (2) task, (3) supervisor, (4) coworkers, and (5) company. For referent information, the five sources were rated in the same order except that the supervisor was rated as most informative.

From these findings, Greller & Herold (1975) concluded that a linear trend of reliance on sources, going from intrinsic to extrinsic sources, exists. As such, they

studied the relationship of this trend to various characteristics of the sources studied. In this analysis, they found no significant relationships between source reliance trend and self or task source characteristics. For the supervisor as a source of appraisal feedback information, however, the following characteristic items were significantly related to the trend to rely on extrinsic feedback sources: "My supervisor is friendly and approachable", and "My supervisor has influence with his peers in getting certain benefits and resources for his subordinates". For coworkers as a feedback source, one item was related to intrinsic source reliance: "Around here everyone keeps pretty much to himself", and one item was significantly related to extrinsic source reliance: "People around here are alot like me". In addition, one item characterizing the organization was significantly related to a reliance on more extrinsic sources: "The company appreciates my work".

The conclusions made in Greller and Herold's (1975) study have been substantiated and added to by other studies investigating feedback sources. For instance, Hanser and Muchinsky (1978) used a questionnaire asking respondents to rate the informativeness of the same five sources for referent and appraisal information, and found essentially the same results as Greller and Herold (1975). Psychologically close sources (self and task) were rated

more informative than distant (others and formal organization) sources. In addition, factor analysis of the questionnaire revealed factors representing each of the sources of information originally delineated by Greller and Herold (1975). The factor analytic results also suggested that subjects perceived the source of information as more important than the type (referent or appraisal) of information. The authors suggested, however, that further research is needed to investigate individuals' preferences for information from the various sources.

In another study investigating feedback sources, Herold and Greller (1977) used open-ended interviews with a sample of workers to develop fifty items assessing feedback messages from various sources: supervisor, self, task, peers, and other. Factor analysis of questionnaire responses assessing the frequency with which the fifty items occurred revealed the feedback items could be classified according to the following factors: negative feedback, positive feedback from sources above the recipient in the organizational hierarchy, positive feedback from nonhierarchical others, internal criteria feedback, and work flow feedback. To summarize, Herold and Greller's (1977) study found that workers distinguished feedback mainly along the dimensions of the valence of feedback (positive or negative), and the source of feedback

(psychologically close or distant to the individual).

Interestingly, the authors point out that in this sample the source of feedback was differentiated only for positive feedback.

A recent study by Watson and Grubbs (1985) has extended Greller and Herold's (1977) findings by investigating individuals' implicit beliefs about performance feedback. Subjects were asked to use a multidimensional scaling technique to assess eight dimensions of feedback (ambiguity, frequency, helpfulness, valence, importance, formality, source, organizational level), using the same items as those developed by Greller and Herold (1977). The MDS analysis revealed a three-dimensional structure underlying perceptions of the performance feedback items. The first factor, labeled Authority, described the traditional feedback system in organizations. On this factor, feedback from those higher in authority was rated as more formal and as more important to the individual job-holder than feedback from peers. The second dimension, labeled Utility, reflected the feedback characteristics of frequency, helpfulness, and valence. On this dimension, helpful feedback was believed to be positive in tone and to occur with considerable frequency whereas unhelpful feedback was likely to be perceived as negative in tone and to have a low frequency of occurrence. The third dimension, labeled Source, was defined as either

intrinsic to the individual or extrinsic, originating from an external source. Watson and Grubbs (1985) note that their results indicate that individuals place greatest importance on feedback from those higher in authority; thus, feedback from the boss which is different from that of other sources may result in conflict feelings or negative effects for the individual. With regard to receiving discrepant feedback, authors note that "the consequences of this dilemma for motivation and productivity warrant further research" (p.247). The present study investigates the situation where an individual is faced with conflicting feedback from various sources.

Additional feedback research has continued the trend in examining feedback from various sources. In a recent study by Herold, Liden, and Leatherwood (1986), subjects rated the performance feedback they obtained from various external sources (supervisor, coworkers, and others), in terms of feedback amount, consistency, and reliability. Factor analysis of all the items assessing these characteristics of feedback given by various sources revealed clear factors tapping the different sources. Based on psychometric analyses of the results, the authors concluded that future research could meaningfully

distinguish between feedback sources and the separate characteristics of feedback given by the sources.

Another study, by Larson et al. (1985), investigated the dimensionality of supervisors' performance feedback to see whether various feedback dimensions such as specificity, timing, frequency, and sensitivity could indeed be distinguished. Using revised versions of the Feedback Assessment Questionnaire (FAQ; Ilgen, Hobson, & Dugoni, 1981), managers were asked to describe the dimensions of (1) feedback they received from their supervisors, and (2) feedback they gave to subordinates. Analyses of the FAQ responses revealed the feedback dimensions were highly correlated, although the sensitivity dimension did indicate some discriminability. Larson et al. suggest it may be more appropriate to focus on the overall quality of supervisors' feedback than to treat each dimension separately. While this study investigated only supervisors' feedback, the results do suggest that the feedback received from a source may be perceived as varying in quality or other dimensions. This perception of feedback from a particular source may influence the decision to seek or pay attention to feedback from that source.

Additional research investigating components of the feedback environment has concentrated on delineating aspects and effects of that environment. For example,

Herold and Parsons (1985) have developed a Job Feedback Survey, to assess the amount and type/source of feedback in individuals' organizational environments. The instrument consists of items reflecting the following fifteen feedback source/type dimensions: positive supervisory behavior, positive formal recognition, positive formal data reports, negative consequences, negative expressions, positive co-worker, direct negative co-worker, positive comparisons with others, positive comparisons with self, positive internalized standards, positive task mastery, negative comparisons with others, negative task mastery, and negative time problems. These dimensions can be categorized along a 2 X 3 classification of sign (positive/negative) and source (organization, supervisor/co-workers, task/self). Research with this instrument has been used to demonstrate differences between organizations in their rated feedback environments (Herold & Parsons, 1985). The research has also been used to investigate the consequences of degrees of congruence between individuals' preferences for feedback and the feedback available in the environment (Parsons & Herold, 1986).

Other research in this area has focused on investigating individual differences in the use of feedback information available in the feedback environment (Herold & Parsons, 1985b). Some recent literature suggests the

possible benefits to organizations of altering their feedback environments to be consistent with individual preferences, and to encourage active feedback seeking (Watson, 1986).

In sum, the research on dimensions of the feedback environment has been useful in delineating sources and types of feedback, and other variables related to the use of feedback environmental dimensions. The main feedback message variable which has been investigated is the sign (positive or negative) of the feedback. The main feedback source categories which have been empirically investigated include the self, job, supervisors, coworkers, and formal organization. Several researchers have suggested that these sources can be categorized along a dimension of intrinsic (psychologically close) or extrinsic (psychologically distant) to the individual. From research investigating source characteristics, it is postulated that individuals tend to prefer intrinsic sources of feedback, but also tend to consider feedback from someone higher in the organizational hierarchy as important. Individuals also tend to rate extrinsic feedback sources as informative when these sources are characterized as friendly, open, and trustworthy. Research investigating the feedback environment and climate suggests that individuals may differ consistently in their preference for various sources/types of feedback, and it may be beneficial for

organizations to alter their feedback environments to be congruent with individual preferences, and to encourage active feedback seeking (Herold & Parsons, 1985; Parsons & Herold, 1986; Watson, 1986).

While this research has been useful in indicating individuals' general perceptions of and preferences for feedback, more research is needed to gain a more thorough understanding of individuals' obtaining, interpreting, and using different types of feedback from various sources, especially in relation to their goals. For example, research is needed to investigate what individuals do when feedback from another source is discrepant with their self feedback, given that individuals prefer to rely on themselves or sources "close" to them for feedback (Hanser & Muchinsky, 1978). Research is also needed to explore individuals' feedback seeking behavior in relation to various source attributes and goal characteristics.

Hypotheses

The major purpose of the present study is to extend the research on individuals' feedback seeking behavior. Since the literature identifying feedback seeking behavior as an individual resource is relatively new, it seems particularly important to explore the factors that may be related to an individuals' feedback seeking behavior. A

review of the relevant research suggests that factors such as discrepant feedback, source attributes, and goal characteristics may be meaningful to investigate in their relation to an individual's feedback seeking behavior. Thus, the present study explores the effects of discrepant feedback messages from two sources (supervisor and subordinates) on individuals' later feedback seeking behavior. In addition, the effects of source attributes and goal characteristics on individuals' feedback seeking behavior and the discrepancy/feedback seeking relationships are also examined. Feedback seeking behavior is described here as the overall frequency with which individuals seek feedback, the frequency with which they choose a monitoring or inquiry strategy, and the frequency with which they seek and rely on certain sources for feedback information. The specific hypotheses of the present study are discussed below.

Discrepant Feedback Information

Feedback information may be obtained from many sources in an individual's organizational environment, and these sources may all have differing perspectives regarding the individual's performance (Hanser & Muchinsky, 1978; Herold & Parsons, 1985a). Thus, conflicting, or discrepant, feedback information potentially exists to a great extent in individuals' organizational environments. Given that

discrepant feedback information is a source of uncertainty for individuals striving to attain valued goals, it may also increase several motivations for feedback seeking (Ashford & Cummings, 1983). For instance, when attempting to evaluate self performance and establish a sense of competence, discrepant feedback information may increase one's motivation to seek feedback, in order to obtain more information to resolve the discrepancy and form a self evaluation. Similarly, when striving to obtain valued goals, a discrepancy in feedback information may signal a possible need for error correction in one's behavior, and an individual may thus be motivated to seek more feedback to determine whether a change in behavior is needed. At a more basic level, discrepant feedback information may engender uncertainty (or conflict) in the individual (Berlyne, 1960). As such, the individual may be motivated to reduce this uncertainty by seeking additional feedback information.

Research regarding information discrepancy and uncertainty generally supports the idea that feedback information discrepant with self perceptions will lead to increased feedback seeking (Ashford, 1983; Ashford, 1986; Ashford & Cummings, 1983; Berlyne, 1966; Brickman, 1972; Heslin, Blake, & Rotton, 1972). For instance, Ashford (1983; 1986) found that perceived uncertainty about appropriate behaviors and evaluations was significantly

related to the perceived value of feedback, which was significantly related to frequency of feedback seeking. In a study of information seeking and reactions to discrepant performance information, Brickman (1972) found that subjects receiving discrepant performance information sought additional information more often than did subjects receiving expected performance information. In addition, subjects receiving discrepant information were more rational in revising their opinions according to a Bayesian model as they sought additional information. In another study, Heslin, Blake, and Rotton (1972) also found that subjects sought more information when the information they received was discrepant. Regarding feedback discrepancy in the present study, it is hypothesized that discrepancy in feedback ratings is related to later feedback seeking.

H1a: Absolute amount of discrepancy in feedback ratings is positively related to overall frequency of feedback seeking behavior.

H1b: Absolute amount of discrepancy in feedback ratings from a particular source is positively related to reliance and seeking of feedback from that source.

Sign of Feedback Discrepancy

Besides the amount of discrepancy in feedback messages, it is likely that the sign (positive or negative) of the message discrepancy may also affect individuals' feedback seeking behavior. Specifically, the sign of a feedback message may affect the strategy individuals use to

seek feedback information. Ashford and Cummings (1983) propose two basic strategies of feedback seeking: inquiry and monitoring. Inquiry involves directly asking another individual for feedback. Monitoring, on the other hand, involves a more covert attention to feedback information, such as by noticing others' reactions or comparing one's own behavior to others'. Inquiry and monitoring seeking strategies differ in the costs, such as face loss, effort, and inference costs, associated with them. In general, inquiry involves more face loss and effort costs than monitoring, while monitoring involves more inference costs than inquiry. Since seeking negative information generally involves more face loss costs to the individuals than seeking positive information, it seems likely that individuals receiving negative feedback would minimize the additional face loss costs incurred in the use of an inquiry strategy to seek feedback.

Research generally supports the proposition that the sign of the message discrepancy will be related to the feedback seeking strategy. Ilgen et. al (1979) suggest that the sign of feedback is an important variable affecting individuals' reactions to feedback, where positive feedback is generally responded to more favorably than negative feedback. Likewise, several researchers have suggested that individuals may find it easier to seek

positive feedback because seeking positive feedback involves fewer face loss costs than seeking negative feedback (Ashford, 1986b; Ashford & Cummings, 1983). In a study of feedback seeking behavior, Ashford (1986a) found that individuals who believed they had performed poorly also perceived more risk in seeking feedback. In addition, those perceiving more risk in feedback seeking were less likely to use an inquiry seeking strategy. For the present study, it is hypothesized that the sign of message discrepancy from a given source will be related to the feedback seeking strategy used for a particular source.

H2a: Individuals who have received negatively discrepant feedback from a given source use a monitoring strategy with that source more than do individuals who have received positively discrepant feedback from that source.

H2b: Individuals who have received positively discrepant feedback from a given source use an inquiry strategy with that source more than do individuals who have received negatively discrepant feedback from that source.

Source Attributes

Besides feedback sign, another variable important in understanding individuals' attention to feedback from various sources is that of the perceived attributes of the sources. In a review of individual feedback research, Ilgen et al (1979) suggested that two source attributes important in the individual feedback process are the characteristics of credibility and power. Credibility

refers to the perceived expertise and trustworthiness of the source. A credible source presumably would be familiar with the task itself and with the individual's own performance on the task. Power refers to the source's control of rewards and sanctions relevant to the individual. Ilgen et al. (1979) suggested that credibility strongly affects individuals' acceptance of feedback, while power affects individuals' desire to respond in line with feedback. Presumably these source attributes would also affect individuals' feedback seeking and reliance on various sources for feedback. That is, it seems likely that individuals would prefer to seek feedback information from a credible source than from one who is less credible. In addition, an individual may be more likely to seek feedback information about how well a powerful source perceives his/her performance, since a powerful source is one who controls valued rewards.

Another characteristic which would seem important for the source choice of feedback seeking is the availability of the source. Ashford & Cummings (1983) point out that even when an individual wishes to seek feedback from a credible and powerful source, he/she may not be able to do so if the source is not available. Also, seeking feedback from a source who is not readily available may engender more effort costs, and these costs may tend to offset feedback seeking motivation. In the present study,

hypotheses regarding source credibility, power, and availability are as follows:

H3: For each source, perceived source attributes of credibility, power, and availability are positively related to the feedback seeking and reliance on that source.

In addition to influencing individuals' feedback seeking from a particular source, it seems likely that source attributes of credibility, power, and availability may also moderate the relationship between feedback message discrepancy and subsequent feedback seeking. That is, there may be a stronger relationship between feedback rating discrepancy and the frequency of feedback seeking behavior for individuals perceiving higher levels of source attributes (of credibility, power, and availability).

H4: Rated attributes of feedback sources, such as availability, power, and credibility, positively moderate the relationship between discrepant feedback and feedback seeking behavior and reliance on a source.

Goal Characteristics

Individuals' goals are the organizing or shaping determinants of the processes by which individuals use feedback (Ashford & Cummings, 1983). Individuals value feedback in terms of how it helps them attain and monitor goals which they hold important. Thus, various characteristics of goals should affect individuals' seeking of feedback relating to those goals. Three such important

goal characteristics are goal importance, uncertainty, and commitment. In a study of individual feedback seeking, Ashford (1986a) found that goal importance was positively related to the perceived value of feedback and the frequency of feedback seeking. She also noted that uncertainty about the appropriateness and evaluation of goal behaviors was positively related to the value of feedback, and negatively related to the frequency of seeking feedback. The negative relationship between uncertainty and frequency of seeking feedback seems counter-intuitive, since it is logical that more uncertainty regarding goal attainment would engender more feedback seeking. Another goal variable important in individuals' feedback processes may be that of commitment to the goal, since an individual who is committed to attaining a goal would presumably value goal-relevant feedback, and be more willing to expend effort to obtain this feedback. For the present study, hypotheses regarding goal characteristics are as follows:

H5: Goal characteristics of importance, uncertainty, and commitment are positively related to feedback seeking frequency.

Since individuals may be less likely to seek feedback regarding goals they consider less important (or goals they are certain of, or less committed to), it seems likely that goal characteristics moderate the relationship between feedback discrepancy and feedback seeking (hypothesized in

H1a). That is, there may be a stronger relationship between feedback discrepancy and the frequency of feedback seeking behavior for individuals perceiving higher levels of goal importance, uncertainty, or commitment than for individuals perceiving lower levels of these goal characteristics.

H6: Goal characteristics of importance, uncertainty, and commitment positively moderate the relationship between feedback discrepancies and subsequent feedback seeking frequency.

Summary of Hypotheses

Listed below are the specific hypotheses that were derived for the present study.

1. Feedback rating discrepancy is related to later feedback seeking behavior. Specifically:
 - a. Absolute amount of discrepancy in feedback ratings is positively related to overall frequency of feedback seeking behavior.
 - b. Absolute amount of discrepancy in feedback ratings from a particular source is related to reliance and seeking of feedback from that source.
2. The sign of rating discrepancy from a given source is related to the feedback seeking strategy used for a particular source. Specifically:
 - a. Individuals who have received negatively discrepant feedback from a given source use a monitoring strategy with that source more than do individuals who have received positively discrepant feedback from that source.
 - b. Individuals who have received positively discrepant feedback from a given source use an inquiry strategy with that source more than do individuals who have received negatively discrepant feedback from that source.

- . For each source, perceived source attributes of credibility, power, and availability are positively related to the feedback seeking and reliance on that source.
- . Rated attributes of feedback sources, such as credibility, power, and availability, positively moderate the relationship between discrepant feedback and feedback seeking and reliance on a source.
- . Goal characteristics of importance, uncertainty, and commitment are positively related to feedback seeking frequency.
- . Goal characteristics of importance, uncertainty, and commitment positively moderate the relationship between feedback discrepancies and subsequent feedback seeking frequency.

Overview of the Study

In order to operationalize the proposed study, managers in a large governmental agency participating in a developmental assessment center served as subjects in the research. During the developmental assessment center (called the Skills Assessment Workshop, or S.A.W.), participants were given feedback from various sources relating to 16 performance dimensions assessed by the workshop. This feedback was obtained from questionnaire measures distributed before the S.A.W. to the individual's supervisor, subordinates, self, and in some cases peers. After being given this feedback and at the end of the S.A.W., participants set personal goals (up to three goals in number) for their future performance improvement. These goals were usually chosen by the individuals from among the 16 performance dimensions assessed by the S.A.W. Approximately three months after the S.A.W. participants were sent a questionnaire assessing their perceptions of the following variables: goal characteristics, feedback ratings, source attributes, and feedback seeking behavior. Goal characteristic variables included: the goal dimension they considered most important, their commitment to this

goal, their uncertainty about their performance on this goal, and the perceived importance of this goal. The feedback rating variables included the performance ratings they received from their supervisor and subordinates, as well as the rating they had previously given themselves before the S.A.W. for this goal. Feedback seeking variables included overall frequency of feedback seeking behavior, frequency of using monitoring and inquiry strategies, and the frequency of seeking feedback from their supervisor and subordinates. Source attribute variables included the perceived credibility, power, and availability of their supervisor and subordinates.

Plan of Study

To ascertain the clarity of the measures, a pilot study of the questionnaire was implemented on a small sample of managers ($n = 28$) who attended the S.A.W. in August and September, 1986. In addition to the items used in the present study, the pilot study questionnaire contained open-ended items asking subjects about additional ways with which they sought feedback. The pilot questionnaire also contained an open-ended item asking subjects for evaluative comments about the questionnaire itself, and to indicate any items or instructions which were unclear.

Sample

The sample consisted of 153 middle level managers in a large governmental agency who participated in a developmental assessment center between August, 1986 and June, 1987. A power analysis indicated that a sample of 107 subjects was needed to achieve power of .80 for this study (Cohen, 1977). Advantages to using a managerial sample in the present study include the fact that managers may have more need for feedback in their job-related goals, and may have more sources available from which to obtain feedback. That is, since the performance dimensions for managerial jobs are generally less concrete than for other job-types and often involve interpersonal relations with others, managers may have more need for, or be more aware of, potential sources of feedback in their environment. Likewise, since managers deal with a larger category of others in their work, such as peers, supervisor, subordinates, clients, etc., they have more sources of feedback than non-managers from which to choose to monitor their goals.

In all, 266 managers who had participated in the workshop were sent a followup questionnaire. A total of 157 questionnaires were returned, yielding a response rate of 59%. Of these, 153 questionnaires were useable, including the questionnaires sent during the pilot study.

The sample of 153 managers was 98% male and 97% white. Subjects ranged in age from 29 to 63, with a mean age of 47 (SD = 7.6). The mean organizational tenure was 18 years, and ranged from 1 to 40 years (SD = 8.2). The mean tenure on the present job ranged from 1 to 17 years, with a mean job tenure of 5 years (SD = 3.6).

Procedure

Description of the Skills Assessment Workshop (S.A.W.)

The Skills Assessment Workshop was an agency-wide developmental assessment center required for all managers at all levels of the agency. The objectives for participants in the workshop, as stated in the S.A.W. workbook given to all participants, were as follows:

- To receive feedback on specific supervisory and managerial competencies from surveys, peer and self-assessment.
- To identify strengths and areas for improvement.
- To write an Individual Development Plan (IDP) consisting of specific objectives and actions.
- To learn and practice new behaviors or approaches to developing subordinates.

Approximately 14 managers of the same supervisory level participated in a S.A.W. at one time. The S.A.W. lasted four days, during which time participants engaged in various individual and group exercises designed to assess competency in the following 16 skill dimensions: oral

communication, written communication, supervising, teamwork, developing subordinates, organizational knowledge, personnel practices, technical/professional competence, problem solving and analysis, decision making, planning and organizing, flexibility, influencing others, self-motivation, innovating, and tolerance of stress.

The S.A.W. participants received feedback regarding their competency in the 16 skill dimensions from various sources during the course of the workshop. Participants received self feedback from various self-diagnostic surveys they completed during the workshop. Participants received feedback from their fellow participants in the workshop while they participated in group exercises. Participants also received feedback pertaining to their on-the-job performance on the 16 competency dimensions from questionnaire ratings given by their supervisor, subordinates, self, and in some cases peers. This feedback, termed "SCAN" feedback, was the focus of the present research, and is described more fully below.

To obtain ratings from various knowledgeable sources of a participant's job competency on the 16 skill dimensions, a packet of seven SCAN questionnaires was sent to each participant approximately one month prior to his/her scheduled S.A.W. session. Upon receiving the SCAN questionnaires packet, participants were instructed to distribute the seven questionnaires as follows: one

questionnaire was to be given to his/her immediate supervisor to complete, one questionnaire was to be completed by the participant him/herself, and the other five questionnaires were to be distributed to his/her subordinates for their assessment ratings. If the participant had less than five subordinates, he/she was instructed to distribute any remaining questionnaires to peers. Raters were instructed to complete the questionnaires and return them to the training department within two weeks. Supervisors were assured their SCAN ratings would be used only for developmental purposes, and would be kept private between themselves and their rated subordinate. Subordinates and peers were likewise informed in the SCAN instructions that their ratings would be averaged with other subordinates' ratings, and so would be confidential. Each of the seven SCAN questionnaires contained 60 items assessing the 16 skill dimensions. The seven SCAN questionnaires were identical in content, with only the wording of the instructions slightly altered for the various raters. For each item, raters were instructed to rate the following three factors on 5-point Likert scales: 1) Importance of the item for successful job performance (on a scale ranging from 1=not important to 5=critical); 2) Level of Proficiency Required on the item for successful job performance (on a scale ranging from

1=not required to 5=very high level required); and 3)

Current Proficiency Level on the item for the person being rated (ranging from 1=very low level to 5=very high level).

Once all the SCAN questionnaires had been sent back to the training department, the training department tabulated the SCAN questionnaire results for each of the S.A.W. participants, and these results were given to the participants as feedback on the third day of the workshop. The SCAN feedback was presented from four sources: (1) Job (which was averaged level of proficiency required); (2) Self (participant's self proficiency ratings); (3) Supervisor (proficiency ratings given by the supervisor; and (4) Others (averaged proficiency ratings given by subordinates/peers). SCAN feedback from these four sources was presented during the workshop in three forms: (1) averaged dimension ratings from all sources, (2) individual item ratings from all sources, and (3) averaged ratings of item importance to the job (averaged across all sources). For the averaged dimension ratings, participants were instructed during the S.A.W. to compute "proficiency gap" ratings, which were the difference in ratings between each source and the job source (or proficiency required) ratings. Appendix A contains a sample SCAN feedback form.

At the end of the S.A.W., participants were given guidelines for creating an Individual Development Plan (IDP). They first had to list the benefits from such a

plan, then list the obstacles to implementing the plan, and finally they listed their three highest priority development objectives. For each of the objectives, participants completed an IDP Planning Form, on which they wrote the target dates and actions they planned to take in order to: learn about the competency, practice and apply the competency, and get feedback about competency improvement. On this form, participants also listed personal and situational obstacles to meeting the objective, and sources of help for meeting the objective.

Research Procedure for the Present Study

In order to investigate individuals' use of discrepant feedback information in their monitoring of goals, data on the variables of interest to this study were collected from managers who participated in the S.A.W.. Feedback discrepancy measures were obtained from the SCAN ratings described above. The other variables were obtained from a followup questionnaire (see Appendix B) sent to the S.A.W. participants approximately three months after their S.A.W. session. A description of the measures used in the present study is presented below.

Measures

Proficiency Ratings

Proficiency ratings were measured by the SCAN form ratings obtained prior to the S.A.W. As previously described, the SCAN was a questionnaire containing 60 items measuring the 16 competency dimensions assessed by the S.A.W. Each dimension was measured by several items (ranging from two to seven, with an average of four items per dimension). The SCAN questionnaire was completed by the S.A.W. participant, his/her supervisor, and five of his/her subordinates. (If the participant did not have five subordinates, the remaining questionnaires were completed by peers.) For purposes of the present study, the SCAN ratings of interest included only those pertaining to the participant's reported most important IDP goal. Analysis of the goals chosen by subjects revealed that the six most popular developmental goal dimensions (chosen by about 55% of the subjects were as follows: oral communication, developing subordinates, influencing others, stress management, planning and organizing, and teamwork.

Participants' proficiency level on this goal was measured by several items, which had been rated prior to the workshop by the participants themselves, their supervisors, and their subordinates using a five-point scale (1 = very low level to 5 = very high level). For

each subject, the mean rating for the items constituting the most important goal was used as the proficiency rating measure in the present study.

For the most important IDP goal dimension, the SCAN ratings were tabulated to yield the discrepancy between supervisor and self ratings and between subordinate and self ratings. For each source, (i.e. supervisor or subordinate), the discrepancy scores could range from -4 to +4. A positive discrepancy score meant that the source's (supervisor's or subordinate's) rating was higher than the self rating. Conversely, a negative discrepancy score meant that the self rating was higher than the source's proficiency rating. For testing the hypotheses in the present study (i.e. Hypotheses 1, 4, and 6), the absolute value of the discrepancy scores was used, which could range from 0 to 4.

Goal Characteristics

Figure 3 contains the goal characteristic items. These items included measures of goal commitment, importance, and uncertainty.

Goal Commitment. Goal commitment was assessed by three items on the followup questionnaire. All three items on the followup questionnaire were similar to those used by other researchers assessing goal commitment (Mento, Cartledge, & Locke, 1980; Yukl & Latham, 1978), but were

Keeping in mind the competency area you indicated as pertaining to your most important developmental objective, please CIRCLE the one number next to each statement which best indicates the extent to which that statement has applied to you since the SAW.

Goal Commitment

1. I have been committed to improving my skills in my #1 competency area.
2. I am determined to achieve my IDP objectives for this competency area.
3. I am willing to work at the level required to achieve my objectives for this competency area.

Goal Importance

1. Being proficient in this #1 competency area is important for meeting my goals.
2. I value my achievement in this #1 competency area.

Goal Uncertainty

1. I have worried that my performance in this competency area may be inadequate for meeting my personal goals.
2. I have been unsure about my performance or ability in this area of competency.

Note: Items were rated on a five-point scale (1 = To no extent to 5 = To a very great extent).

Figure 3. Items in Measures of Goal Characteristics.

adapted to refer to subjects' IDP goals, and used different scale anchors. The mean rating of the four items yielded a commitment scale score ranging from 1 to 5, with higher values indicating higher levels of goal commitment.

Importance. Goal importance was measured by two items on the followup questionnaire, which were developed for the present study. Participants rated each item on a 5-point Likert scale, ranging from 1="to no extent" to 5="a very great extent". Mean item ratings yielded importance scale scores ranging from 1 to 5, with higher values indicating higher goal importance.

Uncertainty. Participants' uncertainty about their goal success was measured with two items on the followup questionnaire. Participants rated these items on a 5-point Likert scale, with anchors ranging from 1="to no extent" to 5="a very great extent". The mean rating on these items yielded a scale score ranging from 1 to 5 for this dimension, with higher values indicating higher goal uncertainty.

Source Attributes

Figure 4 contains the items measuring source attributes. The attributes measured included source credibility, power, and availability, as described below.

Source Credibility. Source credibility was measured, for each source, by four items developed for the present

Source Credibility *

Supervisor items

1. My supervisor can help me know how well I am doing in this competency area.
2. My supervisor is familiar with and knowledgeable about my performance in this competency area.
3. My supervisor has the ability to accurately rate my performance in this competency area.
4. I would believe my supervisor's ratings of my performance in this competency area.

Subordinate items:

1. My subordinate(s) can help me know how well I'm doing in my #1 competency area.
2. My subordinates are familiar with and knowledgeable about my performance in this competency area.
3. My subordinates have the ability to accurately rate my performance in this competency area.
4. I would believe my subordinates' ratings of my performance in this competency area.

Source Power **

Supervisor items

1. My supervisor rewards my good work.
2. I am influenced by my supervisor's wishes at work.
3. My supervisor would let me know about it if I performed poorly.
4. My supervisor has the authority to tell me what to do.
5. I admire my supervisor.
6. My supervisor has the ability to influence my behavior.

Figure 4. Items in Measures of Source Attributes.

7. My supervisor is very proficient.
8. My supervisor has the right to tell me what to do.

Subordinate items:

1. My subordinate(s) have the ability to influence my behavior.
2. Working with my subordinates is rewarding.
3. I am influenced by my subordinates' wishes at work.
4. My subordinates give me credit where credit is due.
5. My subordinate(s) are very proficient.
6. I identify with my subordinate(s).
7. My subordinates have control over rewards that are important to me.

Source Availability **

Supervisor items:

1. My supervisor is available and willing to give me feedback about my job performance when I want it.
2. My supervisor is available when I need to consult him/her.

Subordinate items:

1. My subordinates are available and willing to give me feedback about my performance when I want it.
2. One of my subordinates is usually available when I need to consult him/her.

* Note: Items were rated on a five-point scale (1 = To no extent to 5 = To a very great extent).

** Note: Items were rated on a five-point scale (1 = Strongly Disagree to 5 = Strongly Agree).

Figure 4. (Continued)

study. Subjects rated these items on a five-point Likert scale ranging from 1="to no extent" to 5="to a very great extent". The mean rating across the four items yielded a credibility score ranging from 1 to 5, for each source, with higher values indicating higher source credibility.

Source Power. Source power for the supervisor was measured by eight items. Two items (items 2 and 6 in Figure 4) were developed for the present study, and six items were adapted from supervisor power measures used by Holzbach (1974) and Podsakoff, Toder, and Huber (1980). Source power for the subordinate source was measured by seven items. Four items (items 1, 2, 3, and 7) were developed for the present study and three items were adapted from those used by Holzbach (1974) Podsakoff et al. (1980) to measure supervisor power. Subjects rated these items on a five-point Likert scale ranging from 1="strongly disagree" to 5="strongly agree". The mean rating across the items, for each source, yielded a score ranging from one to five for this dimension, with higher values indicating higher source power.

Source Availability. Source availability was measured, for each source, with two items developed for the present study. Subjects rated these items on a five-point Likert scale ranging from 1="to no extent" to 5="to a very great extent". The mean rating across the items, for each source, yielded a score ranging from one to five for this

dimension, with higher values indicating higher source availability.

Feedback Seeking Behavior and Reliance

Various aspects of managers' feedback seeking behavior and reliance were the dependent variables of interest in the present study. Altogether, 23 items were combined in various ways to measure the following feedback seeking behavior and reliance variables: overall feedback seeking behavior, feedback seeking behavior and reliance on the supervisor, supervisor inquiry, supervisor monitoring, feedback seeking and reliance on subordinates, subordinate inquiry, and subordinate monitoring. Figure 5 contains the 21 feedback seeking behavior items and two reliance items.

Overall Feedback Seeking Behavior. Overall feedback seeking behavior was assessed with 21 items on the followup questionnaire. All items except items 7 and 14 in Figure 5 were included in the overall feedback seeking behavior measure. Ten of these items were the same as those used by Ashford (1983). Eleven items (items 1, 8, 9, 10, 11, 12, 13, 15, 21, 22, 23) were adapted from Ashford's items to assess subordinates as a source of feedback seeking and additional self and task and inquiry items. For each feedback seeking behavior item, subjects were asked to rate the frequency with which they engaged in the feedback seeking behavior, on a 5-point Likert scale ranging from

Since the Skills Assessment Workshop, and while working toward your #1 IDP competency area, how frequently did you:

Source: Supervisor

Strategy: Inquiry

1. Ask your supervisor for feedback about your performance in this competency area.
2. How frequently, overall, did you seek feedback from your supervisor regarding how well you're doing on your #1 competency area.

Strategy: Monitoring

3. Pay attention to how your supervisor acts toward you in order to understand how he/she perceives and evaluates your performance in this competency area.
4. Observe the characteristics of people who are rewarded by your supervisor and use this for your own feedback information.
5. Compare yourself with your supervisor on this competency area.
6. Observe your supervisor's reactions to you when you behaved in ways to improve in this competency area.
7. While working toward your #1 IDP competency area, to what extent did you rely on your supervisor to help you know how well you were doing on this competency.

Source: Subordinates

Strategy: Inquiry

8. Ask a subordinate for feedback about your performance in this competency area.
9. How frequently, overall, did you seek feedback from a subordinate regarding how well you're doing on this #1 competency area.

Figure 5. Items in Measures of Feedback Seeking Behavior.

Strategy: Monitoring

10. Pay attention to how your subordinate(s) acts toward you in order to know how they evaluate your performance in this competency area.
11. Observe subordinate(s)' reactions to you when you behaved in ways to improve in this competency area.
12. Observe the characteristics of subordinates who are rewarded (e.g. with praise, recognition, etc.) on this competency area, and use this as feedback on your own performance.
13. Compare yourself with your subordinates on this competency area.
14. While working toward your #1 IDP competency area, to what extent did you rely on your subordinate(s) to help you know how well you were doing on this competency.

Source: Peers

Strategy: Inquiry

15. Ask a coworker for feedback about your performance in this competency area.
16. How frequently, overall, did you seek feedback from a coworker regarding your performance on this #1 competency area.

Strategy: Monitoring

17. Pay attention to how coworker(s) act toward you in order to understand how they perceive and evaluate your performance in this competency area.
18. Compare yourself with your coworker(s) on this competency area.
19. Observe the characteristics of coworker(s) who have received rewards (e.g. praise, promotions, etc.) for their performance on this competency and use this as feedback about your own performance.
20. Observe coworker(s)' reactions to you when you behaved in ways to improve in this competency area.

Figure 5. (Continued)

Source: Self and Task

21. Think about how well you're doing and use your own thoughts as feedback about this competency area.
22. Look at the results of your work, and use this information to judge how well you're doing in this competency area.
23. Seek feedback regarding your performance on this competency.

Note: All items were rated on a five-point scale (1 = very infrequently to 5 = very frequently), except items #7 and #14, which were rated on a five-point scale (1 = to no extent to 5 = to a very great extent).

Figure 5. (Continued)

1="Very Infrequently" to 5="Very Frequently". The mean rating on these items yielded a scale score ranging from 1 to 5, with higher values indicating more frequent feedback seeking behavior.

Feedback Seeking and Reliance on the Supervisor.

Feedback seeking and reliance on the supervisor was measured with seven items (see Figure 5, items 1 - 7). The first six items were included in the measure of overall feedback seeking behavior, and were adapted from Ashford's (1983) research. For these items, subjects rated, on a five-point Likert scale, the frequency with which they sought feedback from their supervisor. The seventh item was developed for the present study to measure the extent to which subjects relied on the supervisor for feedback. Subjects rated this item on a five-point Likert scale ranging from 1="to no extent" to 5="to a very great extent". The mean rating on the seven items combined yielded a score ranging from 1 to 5, with higher values indicating higher feedback seeking and reliance on the supervisor.

Supervisor Inquiry. Supervisor inquiry was measured by items #1 and #2 in Figure 5. As noted, subjects rated these items on five-point Likert scales ranging from 1="very infrequently" to 5="very frequently". The mean rating on these two items yielded a supervisor inquiry score ranging from one to five, with higher values

ing more frequent use of an inquiry strategy with supervisor.

Supervisor Monitoring. Supervisor monitoring was measured by items 3 - 6 in Figure 5, which subjects rated using five-point Likert scales ranging from 1="very infrequently" to 5="very frequently". The mean rating on these four items yielded a supervisor monitoring score ranging from one to five, with higher values indicating more frequent use of a monitoring strategy with supervisors.

Feedback Seeking Behavior and Reliance on Subordinates. Feedback seeking and reliance on subordinates was measured by items 8 - 14 in Figure 5.

Items 8 through 13 were adapted from Ashford's (1983)

research. For each of these items, subjects rated the frequency with which they sought feedback from their subordinates on a scale ranging from 1 = "Very infrequently" to 5 = "Very frequently". Item 14 was developed for the present study to measure the extent to which subjects relied on subordinates for feedback. Subjects rated this item on a scale ranging from 1 = "to no extent" to 5 = "to a very great extent". Mean ratings on the seven items combined yielded a scale score ranging from one to five, with higher values indicating greater feedback seeking and reliance on subordinates.

Subordinate Inquiry. Subordinate inquiry was measured by items 8 and 9 of Figure 5, which subjects rated using five-point Likert scales ranging from 1="very infrequently" to 5="very frequently". Mean ratings on the two items yielded a score ranging from one to five, with higher values indicating more frequent use of an inquiry strategy with subordinates.

Subordinate Monitoring. Subordinate monitoring was measured by items 10 - 13 of Figure 5, which subjects rated using five-point Likert scales ranging from 1="very infrequently" to 5="very frequently". Mean ratings on the four items yielded a score ranging from one to five, with higher values indicating more frequent use of a monitoring strategy with subordinates.

Data Analysis

For the present study, tests of internal consistency (coefficient alpha) were computed to determine the reliability of the scales used. Descriptive statistics (mean, standard deviation, and range) and correlations among the scales as well as simple and multiple regressions of the variables were analyzed and reported.

The SAS (1986) system was used for all computer data analyses. Missing values were excluded for the correlational and regression analyses.

CHAPTER IV

RESULTS

The results of the data analyses are reported in this chapter. Descriptive statistics and psychometric properties of the measures used in the study are presented, followed by presentation of the data analyses for testing the hypotheses postulated in Chapter Two. In addition, given the exploratory nature of the current literature on individuals' feedback seeking behavior and the need for more definitive research, the results from additional exploratory analyses are reported.

Descriptive Statistics and Psychometric Properties of the Measures

Descriptive statistics for all the variables used in the study, along with internal consistency estimates of reliability (coefficient alpha) for each measure, are presented in Table 1. The intercorrelations among the major variables in this study are presented in Table 2, and references to this table are made throughout the next several sections.

Table 1. Descriptive Statistics and Coefficient Alpha
Reliability Estimates for Measures in the Study.

Variable (# of items)	N	M	SD	Actual Range	a
Source Proficiency Ratings a					
Supervisor's Rating	143	3.50	.67	1.0-5.0	
Subordinates' Rating	149	3.49	.58	2.1-5.0	
Self Rating	149	3.60	.52	2.3-5.0	
Rating Discrepancies b					
Overall Rating Discrepancy	149	.57	.38	0.0-1.8	
Self-Supervisor Discrepancy	143	.60	.50	0.0-2.5	
Self-Subordinate Discrepancy	149	.53	.46	0.0-2.0	
Source Attributes a					
Supervisor Credibility (4)	152	3.19	.80	1.3-5.0	.86
Supervisor Power (8)	151	3.93	.45	2.4-4.9	.79
Supervisor Availability (2)	151	3.69	.71	2.0-5.0	.71
Subordinate Credibility (4)	152	3.45	.84	1.0-5.0	.89
Subordinate Power (7)	149	3.76	.44	1.0-4.9	.76
Subordinate Availability (2)	148	3.97	.58	1.0-5.0	.68
Goal Characteristics a					
Goal Importance (2)	152	3.84	.65	2.5-5.0	.68
Goal Uncertainty (2)	152	2.37	.73	1.0-4.5	.48
Goal Commitment (3)	152	3.81	.64	1.0-5.0	.85
Feedback Seeking (FSB) and Reliance a					
Overall FSB (21)	151	2.85	.66	1.0-4.2	.93
Supervisor FSB/Reliance (7)	152	2.68	.76	1.0-4.6	.85
Supervisor FSB Inquiry (2)	151	2.11	.87	1.0-4.5	.78
Supervisor FSB Monitoring (4)	151	2.97	.86	1.0-5.0	.80
Subordinate FSB/Reliance (7)	151	2.89	.84	1.0-4.4	.89
Subordinate FSB Inquiry (2)	150	2.49	.98	1.0-4.5	.79
Subordinate FSB Monitoring(4)	150	3.05	.88	1.0-4.8	.84

- a. Measures had a possible range of 1 to 5, with 1 indicating low levels of the variable and 5 indicating high levels of the variable.
- b. Measures had a possible range of 0 to 4, with 4 indicating the highest level of the variable.

Table 2. Zero-Order Pearson Correlations Among Measures in the Study.*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Sup. Rating	40c	18a	-25b	-33c	-04	01	11	21	-12	-03	06	-06	-20a	-01	-25b	-21a	-13	-25b	-22b	-16	-25b	
2. Sub. Rating	-	22b	-16a	-11	-12	17a	20a	22b	-09	08	16a	-20a	-14	-16a	-08	-02	-03	-06	-18a	-08	-21b	
3. Self Rating	-	10	02	12	02	08	14	-09	07	15	08	-03	08	-04	-03	-04	-02	-09	-04	-08		
4. Overall Discrepancy	-	80c	77c	-13	-02	-05	13	06	23b	13	01	17a	13	03	-08	10	19a	10	21b			
5. Supervisor Discrepancy	-	21b	-00	-07	-09	11	-01	08	11	10	11	19a	13	03	18a	18a	09	21b				
6. Subordinate Discrepancy	-	-19	04	00	08	07	24	04	-08	12	-00	-10	-17a	-03	09	04	09					
7. Supervisor Credibility	-	51c	36c	15	-05	-05	20	-12	15	28c	52c	44c	35c	15	08	13						
8. Supervisor Power	-	49c	04	16a	03	12	-28c	18a	01	11	13	01	-01	-02	-03							
9. Supervisor Availability	-	04	-00	09	07	-29c	13	-02	13	19a	01	-05	-04	-05								
10. Subordinate Credibility	-	35c	26b	24b	-00	25b	38c	20b	14	17a	69c	51c	61c									
11. Subordinate Power	-	54c	13	-16	14	15	-01	-00	01	36c	23b	38c										
12. Subordinate Availability	-	26b	-17a	28c	17a	02	-01	05	24b	21a	24b											
13. Goal Importance	-	24b	59c	41c	34c	23c	33c	33c	22b	33c												
14. Goal Uncertainty	-	00	18a	16	03	20b	07	-00	11													
15. Goal Commitment	-	43c	36c	31c	31c	36c	26c	36c														
16. Overall FSB	-	86c	70c	84c	82c	70c	82c															
17. Supervisor FSB/Reliance	-	81c	92c	59c	48c	59c																
18. Supervisor FSB Inquiry	-	56c	49c	58c	41c																	
19. Supervisor FSB Monitoring	-	56c	37c	63c																		
20. Subordinate FSB/Reliance	-	86c	94c																			
21. Subordinate FSB Inquiry	-	65c																				
22. Subordinate FSB Monitoring	-																					

* Decimal points have been omitted.

a $p < .05$, b $p < .01$, c $p < .001$.

Tests of Hypotheses

Hypothesis 1a

In Hypothesis 1a it was predicted that the absolute amount of discrepancy in feedback messages would be positively related to the overall frequency of feedback seeking behavior. To obtain a measure of the absolute amount of discrepancy in feedback messages for each subject, the mean of their two discrepancy scores (self vs. supervisor's rating and self vs. subordinates' rating) was computed. As shown in Table 2, the zero-order correlation between overall message discrepancy and overall feedback seeking behavior was not significant ($r = .13$, n.s.). Therefore, Hypothesis 1a was not supported.

Hypothesis 1b

In Hypothesis 1b it was predicted that absolute amount of discrepancy in feedback message from a particular source would be positively related to reliance and seeking of feedback from that source. As shown in Table 2, the correlation between self-supervisor discrepancy and feedback seeking behavior and reliance on the supervisor was not significant ($r = .13$, n.s.). For subordinates as a source of feedback, the correlation between self-subordinate discrepancy and feedback seeking and reliance on subordinates was also not significant ($r = .09$, n.s.). Therefore, Hypothesis 1b was not supported.

Hypothesis 2a

In Hypothesis 2a it was expected that individuals who received negatively discrepant feedback from a given source would use a monitoring strategy with that source more than would individuals who received positively discrepant feedback from that source. To test this hypothesis, subjects were divided into two groups: those receiving negatively discrepant feedback from a source (i.e. their self rating was higher than the source's rating of them), and those receiving positively discrepant feedback from a source (i.e. their self rating was lower than the source's rating of them).

A t-test comparing the mean monitoring values of the two groups (i.e. those receiving negatively discrepant feedback versus those receiving positively discrepant feedback from their supervisor) revealed a significant difference in the monitoring of the two groups ($t = 2.91$, $R^2 = .06$, $p < .01$). Examination of the mean supervisor monitoring scores of the two groups revealed that subjects in the negatively discrepant group ($N = 72$) monitored their supervisor for feedback more ($M = 3.21$, $SD = .75$) than did subjects in the positively discrepant group ($N = 56$, $M = 2.79$, $SD = .85$). Therefore, Hypothesis 2a was supported for the supervisor as a source of feedback.

For subordinates as a source of feedback, a t-test comparing the mean subordinate monitoring scores of subjects receiving negatively discrepant feedback from their subordinates ($N = 81$) versus those receiving positively discrepant feedback from their subordinates ($N = 50$) revealed no significant difference in subordinate monitoring between the two groups ($t = 1.39$, n.s.; $M = 3.14$, $SD = .87$; $M = 2.92$, $SD = .85$, respectively).

Hypothesis 2b

In Hypothesis 2b it was predicted that individuals who received positively discrepant feedback from a given source would use an inquiry strategy with that source more than would individuals who received negatively discrepant feedback from that source.

For the supervisor as a source of feedback, subjects were divided into two groups: those who received negatively discrepant feedback from their supervisor pertaining to their most important competency goal (i.e. their supervisor rated them lower than they rated themselves ($N = 72$), and those who received positively discrepant feedback from their supervisor (i.e. their supervisor rated them higher than they rated themselves ($N = 56$)). A t-test comparing the mean supervisor monitoring score of subjects in the negatively discrepant group ($M = 2.2$, $SD = .88$) versus the mean supervisor monitoring score of subjects in the

positively discrepant group ($\bar{M} = 2.1$, $SD = .85$) revealed no significant difference between the two groups ($t = 1.1$, n.s.). Therefore, Hypothesis 2b was not supported for the supervisor as a source of feedback.

For subordinates as a source of feedback, subjects were divided into two groups: those who received negatively discrepant feedback from their subordinates pertaining to their most important competency goal (i.e. their subordinates rated them lower than they rated themselves ($N = 81$), and those who received positively discrepant feedback from their subordinates (i.e. their subordinates rated them higher than they rated themselves ($N = 50$)). A t-test comparing the mean inquiry score of subjects in the negatively discrepant group ($\bar{M} = 2.54$, $SD = .97$) versus the mean inquiry score of subjects in the positively discrepant group ($\bar{M} = 2.45$, $SD = 1.0$) revealed no significant difference between the two groups in subordinate inquiry ($t = .49$, n.s.). Thus, Hypothesis 2b was not supported for the feedback source of subordinates.

Hypothesis 3

It was hypothesized that perceived source attributes of credibility, power, and availability were positively related to the amount of feedback seeking behavior and reliance on that source. Table 2 presents the zero-order correlations of source attributes with feedback seeking and

reliance for both the supervisor and subordinates as sources of feedback.

For the supervisor as a feedback source, the correlation between supervisor credibility and seeking and reliance on the supervisor for feedback was significant ($\underline{r} = .52, p < .001$), indicating that higher levels of supervisor credibility were associated with higher levels of feedback seeking and reliance on supervisors by subjects. However, the correlations of supervisor power and availability with seeking and reliance on the supervisor for feedback were not significant ($\underline{r} = .11$, and $\underline{r} = .13$, respectively). Therefore, Hypothesis 3 was only partially supported for the feedback source of supervisor, for the attribute of credibility.

For subordinates as a feedback source, the correlations between seeking and relying on subordinates for feedback and subordinate credibility ($\underline{r} = .69, p < .001$), subordinate power ($\underline{r} = .36, p < .001$), and subordinate availability ($\underline{r} = .24, p < .01$) were significant. These findings indicated that higher levels of the subordinate attributes of credibility, power, and availability were associated with higher levels of feedback seeking and reliance on subordinates by subjects. Hypothesis 3 was therefore supported for the feedback source of subordinates.

Hypothesis 4

It was hypothesized that rated source attributes of credibility, power, and availability would positively moderate the relationship between discrepant feedback and feedback seeking behavior and reliance from a source. For example, at higher amounts of feedback discrepancy, individuals perceiving higher levels of a source attribute (credibility, power, availability) were expected to seek feedback from that source more than individuals perceiving lower levels of a source attribute (credibility, power, availability).

To test the effects of source attributes as moderators for the discrepancy/feedback seeking relationship, a series of regression analyses was conducted regressing feedback seeking behavior and reliance on discrepancy, each source attribute, and the corresponding interaction term. A significant interaction term would suggest that the source attribute may be operating as a moderator (James & Brett, 1984).

The results for the supervisor as a source of feedback are presented in Table 3, and the results for subordinates as a source of feedback are presented in Table 4. The first analysis done for each type of source attribute was a simple regression of feedback seeking behavior and reliance on a source onto the discrepancy between the self and that source's feedback, to get an indication of the direct

Table 3. Regression Analyses of Feedback Seeking and Reliance on the Supervisor on Feedback Discrepancy, Each Source Attribute, and the Corresponding Interaction Term.

Variable	Beta	R ²	FR ²	C R ²	FCR ²
<u>DV: Feedback Seeking and Reliance on the Supervisor</u>					
Supervisor Discrepancy	.13	.0167	2.39		
Supervisor Discrepancy Supervisor Credibility	.13 .50***	.2635	25.04	.2468	46.9**
Supervisor Discrepancy Supervisor Credibility Interaction Term	.48 .60*** -.38	.2712	17.24	.0077	1.47
<u>DV: Feedback Seeking and Reliance on the Supervisor</u>					
Supervisor Discrepancy	.13	.0167	2.39		
Supervisor Discrepancy Supervisor Power	.14 .08	.0228	1.62	.0061	.87
Supervisor Discrepancy Supervisor Power Interaction Term	.08 .07 .06	.0228	1.07	.00	.00

Table 3. (Continued)

Variable	Beta	R2	FR2	C R2	FCR2
<u>DV: Feedback Seeking and Reliance on the Supervisor</u>					
Supervisor Discrepancy	.13	.0167	2.39		
Supervisor Discrepancy	.14				
Supervisor Availability	.11	.0298	2.13	.0131	1.88
Supervisor Discrepancy	.58				
Supervisor Availability	.22				
Interaction Term	-.45	.0357	1.71	.0059	.85

a. Beta refers to the standardized regression coefficient.

* $p < .05$, ** $p < .01$, *** $p < .0001$.

Table 4. Regression Analyses of Subordinate Feedback Seeking and Reliance on Feedback Discrepancy, Each Source Attribute, and the Corresponding Interaction Term.

Variable	Beta	R ²	FR ²	C R ²	FCR ²
<u>DV: Feedback Seeking and Reliance on Subordinates</u>					
Subordinate Discrepancy	.09	.0085	1.25		
Subordinate Discrepancy	.05				
Subordinate Credibility	.67***	.4552	60.58	.4467	118.9***
Subordinate Discrepancy	.05				
Subordinate Credibility	.67***				
Interaction Term	-.01	.4552	40.11	0.0	0.0
<u>DV: Feedback Seeking and Reliance on Subordinates</u>					
Subordinate Discrepancy	.09	.0085	1.25		
Subordinate Discrepancy	.06				
Subordinate Power	.36***	.1322	10.82	.1237	20.24***
Subordinate Discrepancy	-.38				
Subordinate Power	.30*				
Interaction Term	.44	.1337	7.25	.0015	.24

Table 4. (Continued)

Variable	Beta	R2	FR2	C R2	FCR2
<u>DV: Feedback Seeking and Reliance on Subordinates</u>					
Subordinate Discrepancy	.09	.0085	1.25		
Subordinate Discrepancy	.02				
Subordinate Availability	.25**	.0630	4.77	.0545	8.26***
Subordinate Discrepancy	-1.37*				
Subordinate Availability	.01				
Interaction Term	1.48*	.0958	4.98	.0328	5.11*

a. Beta refers to the standardized regression coefficient.

* $p < .05$, ** $p < .01$, *** $p < .0001$.

relationship. The second analysis was a multiple regression of feedback seeking onto discrepancy and a source attribute together. The third analysis added the discrepancy X source attribute interaction term as an additional independent variable in the regression model. If the beta for the interaction term was significant, there would be an indication of a moderator.

As shown in Table 3, no significant interaction terms were found for any supervisor source attributes. Therefore, Hypothesis 4 was not supported for the supervisor as a source of feedback, indicating that source attributes did not serve as moderators of the relationship between discrepancy and feedback seeking behavior and reliance.

For subordinates as a source, as shown in Table 4, a significant interaction term was found only for the subordinate attribute of availability ($B = 1.48$, $p < .05$). The subordinate availability X self-subordinate discrepancy interaction accounted for a significant amount of variance in feedback seeking behavior and reliance on subordinates ($FCR2 = 5.11$, $p < .05$).

The predicted values for the relationships between subordinate-self feedback discrepancy and feedback seeking behavior and reliance on subordinates at various levels of the subordinate availability X discrepancy interaction term were plotted in Figure 6. As predicted, at a higher level

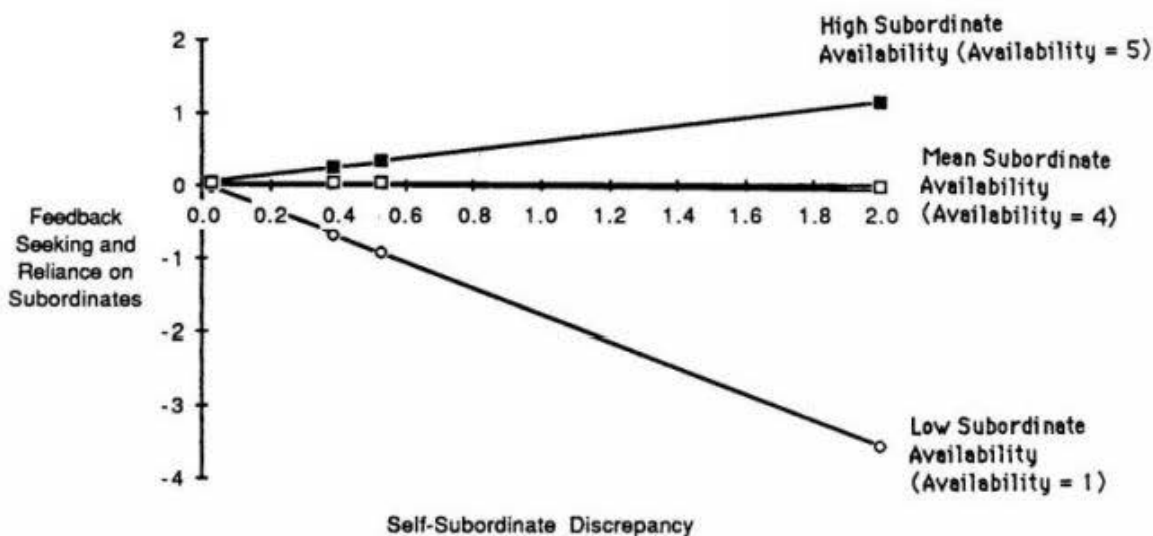


Figure 6. Predicted Values of the Relationship Between Self-Subordinate Discrepancy and Subordinate Feedback Seeking and Reliance at Various Levels of Subordinate Availability.

of subordinate feedback discrepancy, the greater the perceived subordinate availability, the greater the amount of feedback seeking behavior and reliance on subordinates. As expected, at lower levels of subordinate feedback discrepancy, the amount of feedback seeking behavior and reliance varied less as a function of subordinate availability.

To further explore the moderating role of subordinate availability for the discrepancy/feedback seeking behavior and reliance relationship, a subgroup analysis using Fisher's r to z transformation was performed. Since 60% (84) of subjects reported the same mean of above average subordinate availability, subjects were divided into two comparison groups: those reporting very high subordinate availability above this mean ($N = 25$) and those reporting low subordinate availability below this mean ($N = 40$). For the high subordinate availability group, the correlation between discrepancy and subordinate feedback seeking behavior and reliance was $r = .46$ ($p < .05$). For the low subordinate availability group, the correlation between discrepancy and subordinate feedback seeking behavior and reliance was $r = -.17$. Subgroup analysis using Fisher's r to z transformation (see Cohen & Cohen, 1983) showed the correlation for high subordinate availability was not significantly different from the correlation for low subordinate availability ($z = 1.21$, n.s.).

In summary, Hypothesis 4 was not supported for supervisor attributes of credibility, power, or availability, nor for the subordinate attributes of credibility or power, but was partially supported for the subordinate attribute of availability.

Hypothesis 5

It was hypothesized that the goal characteristics of importance, uncertainty, and commitment were positively related to overall feedback seeking behavior. As shown in Table 2, the correlations between overall feedback seeking behavior and goal importance ($r = .41, p < .001$), goal uncertainty ($r = .18, p < .05$), and goal commitment ($r = .43, p < .001$) were significant, indicating that individuals reporting higher levels of these goal characteristics also reported higher levels of feedback seeking behavior. Overall, Hypothesis 5 was supported.

Hypothesis 6

It was predicted in Hypothesis 6 that goal characteristics of importance, uncertainty, and commitment would positively moderate the relationship between feedback rating discrepancy and feedback seeking behavior. That is, the relationship between feedback discrepancy and feedback seeking behavior was hypothesized to be a function of the level of a goal characteristic. Specifically, the

relationship between feedback discrepancy and overall feedback seeking behavior would be stronger for individuals perceiving higher levels of goal characteristics than for individuals perceiving lower levels of goal characteristics.

To test the effects of goal characteristics as moderators for the relationship between discrepancy and feedback seeking behavior, a series of regression analyses was performed. The results are shown in Table 5. For each goal characteristic, the first analysis done was a simple regression of feedback seeking behavior onto overall discrepancy in feedback, to get an indication of the direct relationship. Next, feedback seeking behavior was regressed onto discrepancy and a goal characteristic together. The third analysis added the discrepancy X goal characteristic interaction term as an additional independent variable in the model. A significant beta for the interaction term would suggest the goal characteristic may be acting as a moderator.

As shown in Table 5, no significant interactions were found for any goal characteristics. Overall, Hypothesis 6 was not supported. Goal characteristics of importance, uncertainty and commitment were not found to moderate the relationship between discrepancy and feedback seeking behavior.

Table 5. Regression Analyses of Overall Feedback Seeking Behavior on Feedback Discrepancy, Each Goal Characteristic, and the Corresponding Interaction Term.

Variable	Beta	R2	FR2	C R2	FCR2
<u>DV: Overall Feedback Seeking Behavior</u>					
Overall Discrepancy	.13	.0176	2.64		
Overall Discrepancy	.08				
Goal Importance	.38***	.1615	14.06	.1439	25.06***
Overall Discrepancy	.81*				
Goal Importance	.57***				
Interaction Term	-.78	.1786	10.51	.0171	3.02
<u>DV: Overall Feedback Seeking Behavior</u>					
Overall Discrepancy	.13	.0176	2.64		
Overall Discrepancy	.13				
Goal Uncertainty	.21**	.0634	4.94	.0458	7.14**
Overall Discrepancy	.29				
Goal Uncertainty	.28*				
Interaction Term	-.18	.0654	3.38	.002	.31

Table 5. (Continued)

Variable	Beta	R ²	FR ²	C R ²	FCR ²
<u>DV: Overall Feedback Seeking Behavior</u>					
Overall Discrepancy	.13	.0176	2.64		
Overall Discrepancy	.07				
Goal Commitment	.41***	.1792	15.94	.1616	28.74***
Overall Discrepancy	.50				
Goal Commitment	.51***				
Interaction Term	-.47	.1844	10.93	.0052	.92

a. Beta refers to the standardized regression coefficient.

* $p < .05$, ** $p < .01$, *** $p < .0001$.

Additional Analyses

Since the literature on individual feedback seeking behavior reflects a relatively new, yet potentially important area for research, it seemed important to conduct additional exploratory analyses. Of central interest was identifying the factors that might be related to the dependent variables of interest including overall frequency of feedback seeking behavior, reliance on sources, and the strategies individuals use to seek feedback from sources. Since most studies of feedback have investigated the relation of actual feedback ratings (rather than discrepancy of ratings) to various outcomes (Ilgen et al., 1979), the actual (feedback) proficiency ratings were also examined in the present study. Specifically, the relationship between these ratings and feedback seeking behavior and reliance on the supervisor and subordinates was examined. In addition, it seemed important to investigate other factors that might be related to an individual's use of monitoring and inquiry strategies with supervisors and subordinates as sources.

Relation of actual source proficiency ratings to feedback seeking behavior and reliance. In a model of the individual feedback process, Ilgen, Fisher, and Taylor (1979) suggest that the actual feedback obtained from a source is related to various individual outcomes, such as feedback acceptance, intended response, and behavior. In

terms of feedback seeking behavior, it was originally hypothesized that the discrepancy between the individual's self rating and their rating from another source (supervisor or subordinates) would be related to subsequent seeking and reliance on that source for feedback about performance. However, since the results pertaining to Hypotheses 1a and 1b did not show a significant relationship between discrepancy and overall feedback seeking, further analyses seemed warranted of the relationship between the actual source proficiency ratings and overall feedback seeking. Therefore, each actual source proficiency rating was examined in terms of its relationship to feedback seeking and reliance on each source. The mean, standard deviation, and range of the actual proficiency ratings from each of the three sources (supervisor, subordinates, and self) are included in Table 1 and the correlations of actual source proficiency ratings to feedback seeking and reliance variables are included in Table 2.

As shown in Table 2, supervisor actual proficiency rating was negatively related to supervisor feedback seeking and reliance ($r = -.21$), indicating that lower ratings given by supervisors were associated with a greater frequency of feedback seeking behavior and reliance on supervisors. The correlation between subordinates' actual

proficiency rating and subordinate feedback seeking and reliance was also negative ($r = -.18$), indicating that lower ratings given by subordinates were associated with a greater frequency of feedback seeking behavior and reliance on subordinates. In general, results from analyses of source ratings revealed negative relationships between source (supervisor and subordinates) ratings and overall feedback seeking and reliance on that source. Specifically, the lower the source rating, the more that source was sought and relied on for feedback.

Inquiry and monitoring strategies as dependent variables. As noted, it seemed important to explore factors that might be related to an individual's use of a monitoring or inquiry feedback seeking strategy with their supervisor or subordinates. It also seemed logical that feedback seeking using a monitoring strategy may be very different from feedback seeking using an inquiry strategy. Factors that were considered important to investigate in their relation to feedback seeking strategies included: (1) self-other proficiency rating discrepancies, (2) actual source proficiency ratings, (3) source attributes, and (4) goal characteristics. Reported below are the correlational analyses between these factors and an individual's use of the two feedback seeking strategies with both the supervisor and subordinates.

Use of a monitoring strategy with sources. Those variables found to be more highly related to an individual's use of a monitoring feedback seeking strategy with their supervisor included the actual rating they received from their supervisor ($r = -.25$), the discrepancy between their self rating and supervisor's rating ($r = .18$), the perceived credibility of their supervisor ($r = .35$) and their subordinates ($r = .17$), and the characteristics of goal importance ($r = .33$), goal uncertainty ($r = .20$), and goal commitment ($r = .31$). Taken together, these findings indicate that individuals were more likely to use a monitoring strategy to seek feedback from their supervisor when they received a lower performance rating, there was a greater discrepancy between their self rating and their supervisor's rating of them, and they perceived their supervisor and subordinates as having greater credibility. They were also more likely to use a monitoring strategy with their supervisor when they perceived their performance goal as important, they were uncertain of their performance on it, and they expressed commitment for it.

Those variables that were not related to an individual's use of a monitoring strategy to seek feedback from their supervisor included actual ratings and discrepant ratings from subordinates, and the power and availability of their supervisor and subordinates.

Those variables found to be more highly related to an individual's use of a monitoring strategy to seek feedback from subordinates included the actual rating they received from their subordinates ($\underline{r} = -.21$) and their supervisor ($\underline{r} = -.25$), the discrepancy between their self and supervisor's rating ($\underline{r} = .21$), the perceived source attributes of credibility ($\underline{r} = .61$), power ($\underline{r} = .38$), and availability ($\underline{r} = .24$), and the characteristics of goal importance ($\underline{r} = .33$) and goal commitment $\underline{r} = .36$). Taken together, these findings indicate that individuals were more likely to use a monitoring strategy to seek feedback from their subordinates when they received lower performance ratings from their supervisor or subordinates, when there was greater discrepancy between their self rating and their supervisor's ratings, when they perceived their subordinates as higher in credibility, power, and availability, and when they considered their performance goal important and were committed to it.

Those variables that did not seem to be related to an individual's use of a monitoring strategy to seek feedback from their subordinates included self-subordinate rating discrepancy, supervisor attributes, and goal uncertainty.

Use of an inquiry strategy with sources. Those variables found to be more highly related to an individual's use of an inquiry strategy to seek feedback

from their supervisor included the discrepancy between their self rating and their subordinates' rating ($\underline{r} = -.17$), their supervisor's credibility ($\underline{r} = .44$) and availability ($\underline{r} = .19$), and the characteristics of goal importance ($\underline{r} = .23$) and goal commitment ($\underline{r} = .31$). Taken together, these findings indicate that individuals were more likely to use an inquiry strategy to seek feedback from their supervisor when there was less discrepancy between their self rating and their subordinates' rating, when they perceived their supervisor as higher in credibility and availability, and when they perceived their performance goal as more important and they were more committed to it.

Those variables that did not seem to be related to an individual's use of an inquiry strategy to seek feedback from their supervisor included actual ratings from their supervisor and subordinates, discrepancy in ratings from their supervisor, perceived supervisor power, subordinate attributes, and goal uncertainty.

Those variables found to be more highly related to an individual's use of an inquiry strategy with subordinates included the perceived subordinate attributes of credibility ($\underline{r} = .51$), power ($\underline{r} = .23$), and availability ($\underline{r} = .21$), and the goal characteristics of importance ($\underline{r} = .22$) and commitment ($\underline{r} = .26$). Taken together, these findings indicate that individuals were more likely to use

an inquiry strategy with their subordinates when they perceived their subordinates as higher in credibility, power, and availability, and when they considered their goal more important, and when they were more committed to their goal.

Those variables that did not seem to be related to an individual's use of an inquiry strategy to seek feedback from subordinates included the actual ratings and discrepancy in ratings from the supervisor and subordinates, supervisor attributes, and goal uncertainty.

Summary. In general, results from the exploratory analyses of factors relating to the use of monitoring and inquiry strategies revealed that self-other rating discrepancies, source proficiency ratings, source attributes, and goal characteristics seemed to be related to the use of monitoring and inquiry strategies. Factors more highly related to the use of a supervisor monitoring strategy included self-supervisor rating discrepancy, a lower rating from the supervisor, source credibility, and goal characteristics. Factors which were more highly related to the use of a supervisor inquiry strategy included supervisor credibility and availability, and goal importance and commitment.

For subordinates as a feedback source, the following variables were more related to a monitoring strategy:

overall and self-supervisor discrepancy, lower supervisor and subordinate proficiency ratings, subordinate attributes of credibility, power, and availability, and goal importance and commitment. Factors which were more highly related to using an inquiry feedback seeking strategy with subordinates included subordinate attributes of credibility, power, and availability, and the goal characteristics of importance and commitment.

CHAPTER V

DISCUSSION

The general purpose of this study was to facilitate an increased understanding of individuals' feedback seeking behavior in organizations. Specifically in this study, the effects of feedback messages from two sources on later feedback seeking behavior were investigated. In addition, the effects of source attributes and goal characteristics on feedback seeking behavior and reliance were investigated.

In this chapter, the major findings of the study are discussed according to the hypotheses tested and the additional analyses performed. Next, limitations of the study and future research directions are discussed, followed by a presentation of some theoretical and practical implications of the study.

Discussion of Findings

In general, it was expected that discrepancy in feedback ratings, source attributes, and goal characteristics would be positively related to various aspects of managers' feedback seeking behavior. Hypotheses were tested regarding the relationships among these variables, and additional analyses were conducted to

further explore the relationships among the variables with this managerial sample.

Discrepant Feedback Information

The results did not support the prediction of Hypothesis 1a that the overall amount of discrepancy between self rating and two source's (supervisor's and subordinates') ratings would be positively related to overall feedback seeking behavior. A possible explanation for the non-supporting results may be that there was little variance in overall discrepancy ($SD = .38$), and therefore the chances were low of detecting the hypothesized effects with the sample size used in the present study.

Another explanation for the non-supporting results may be that the variables in the hypothesis, as stated, were too broad. That is, it may be incorrect to expect that an individual would react in the same way to a discrepancy in a supervisor's rating as to a discrepancy in subordinates' rating, and thus, the absolute values of the two ratings, combined, could not be expected to explain much variance in the dependent variable. Likewise, combining the feedback seeking items across the two types of strategies (monitoring and inquiry) may have "washed out" important variance.

The predictions made in Hypothesis 1b, that absolute discrepancy between self rating and a source's

(supervisor's or subordinates') rating would be positively related to feedback seeking and reliance on that source, were also not supported by the results. Similar to the explanation proposed above, it may be that the dependent variable of feedback seeking behavior and reliance on a source, which averaged across both strategies of feedback seeking, was too broad.

Message Discrepancy Sign

The results supported the hypothesis that individuals whose supervisors rated them lower than they rated themselves (i.e. those who received negatively discrepant feedback) would use a monitoring strategy to seek feedback from their supervisors more than would individuals whose supervisors rated them higher than they rated themselves (i.e. those who received positively discrepant feedback). However, the results did not support the same hypothesis for subordinates as a source of feedback. The results also did not support the converse hypothesis that individuals whose supervisors or subordinates rated them higher than their self ratings (i.e. positively discrepant feedback) would use an inquiry strategy more than would individuals whose supervisors or subordinates rated them lower than their self ratings (i.e. negatively discrepant feedback).

These results may be discussed in terms of the assumptions underlying the hypotheses (2a and 2b). The

hypotheses were based on findings and suggestions by Ashford (1983; 1986) and Ashford and Cummings (1983) that perceived risks and costs to seeking feedback are negatively related to feedback seeking. For the present study, it was suggested that individuals who received feedback from a source which was negatively discrepant with their self rating would choose to seek feedback with a less risky and less costly (in terms of ego and face loss costs) monitoring strategy more than would individuals who received positively discrepant feedback. Conversely, individuals who had received positively discrepant feedback were expected to perceive less risk in seeking feedback and so would use an inquiry strategy more than would individuals who had received negatively discrepant feedback.

Thus, it would have been helpful in the present study to have had a measure of the perceived costs involved with monitoring and inquiry, particularly in relation to the feedback ratings received. It is suggested, therefore, that future research test the suggestions made by Ashford and Cummings (1983) regarding the face loss, effort, and inference costs associated with monitoring and inquiry. In addition, the costs associated with using these strategies with different sources should also be investigated. Since it was found in the present study that monitoring was used overall more frequently than inquiry, and that positive and

negative discrepancy only influenced monitoring of the supervisor, it may be that the perceived costs (face loss and inference) associated with inquiry almost always outweigh the perceived gains. This seems quite likely for the present study since the sample consisted of middle-level managers in an organization, who may not have wanted to risk looking unsure of themselves by asking for feedback.

Taken together, the results from the first two hypotheses suggest that the discrepancy between self and others' feedback ratings is not highly related to the frequency of feedback seeking behavior, whether overall or for each source. In addition, discrepancy between self and others' feedback ratings does not seem to be very informative for indicating the type of feedback seeking strategy an individual will use, except when seeking feedback from the supervisor. When seeking feedback from the supervisor, it was found that individuals who received negatively discrepant feedback from their supervisor (i.e. lower supervisor ratings than self ratings) tended to use a monitoring strategy more than individuals who received positively discrepant feedback from their supervisor (i.e. higher supervisor ratings than self ratings).

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Source Attributes

The results indicated, in support of Hypothesis 3, that subordinate attributes of credibility, power, and availability were positively related to overall feedback seeking behavior and reliance on subordinates as a source of feedback. These relationships are consistent with research reviewed by Ilgen et al. (1979) and suggestions by Ashford and Cummings (1983), that source attributes of credibility, power, and availability are important ones for consideration by individuals in their feedback processes. The findings also make sense given the level of managers used as subjects in the present study. It seems reasonable that middle level managers with considerable tenure would be more inclined to seek feedback from subordinates higher in credibility, power, and availability due to the potential face loss costs associated with seeking feedback from subordinates.

For the supervisor as a source of feedback, the results indicated that only the attribute of supervisor credibility was significantly related to overall seeking and reliance on the supervisor for feedback. The finding that the perceived credibility of the supervisor was positively related to seeking feedback from the supervisor is consistent with research reviewed by Ilgen et al. (1979), which indicates that source credibility is an

important variable in the individual's goal-feedback processes.

The finding that the perceived power of the supervisor was not related to seeking feedback from the supervisor is not consistent with the general suggestion put forth by Ilgen et al. (1979) that the power of a source is an influential variable in an individual's feedback process. It is interesting to note that in their review of feedback literature, Ilgen et al. (1979) suggest that credibility is most likely to affect the acceptance of feedback, while power is most likely to affect an individual's desire to respond to feedback. It would therefore be helpful for future research to investigate explicitly how feedback seeking is related to both the variables of acceptance and desire to respond to feedback. Since in the present study subjects received feedback about their developmental goal, it may have been that they were still working on accepting the feedback or that they were seeking more feedback before they could accept the feedback they had received, or they may have already responded to the feedback received. One problem with studying the goal-feedback process is the inability to gauge what stage of the process individuals may be in. Thus, it may be that supervisor power affects feedback seeking behavior differently depending on what stage of the goal-feedback process an individual is in.

Another explanation for the finding that supervisor power was not related to seeking feedback from the supervisor may be found in the nature of the power measure used in the present study. Power was measured in the present study by combining items which tapped various dimensions of power, and the combination of different dimensions may have been inappropriate for understanding variability in feedback seeking behavior. Also, supervisor power may have been a less meaningful variable to the subjects in this study, since the respondents were mid-level managers with a great deal of autonomy and tenure in their own jobs.

In Hypothesis 4 it was predicted that source attributes would moderate the relationship between feedback discrepancy and feedback seeking behavior and reliance. That is, at higher levels of feedback discrepancy, individuals perceiving higher levels of a source attribute were expected to seek feedback from that source more than individuals perceiving lower levels of a source attribute. For the supervisor as a source of feedback, the results indicated that source attributes did not act as moderators in the supervisor discrepancy-feedback seeking relationship. There was little difference in the discrepancy-feedback seeking behavior relationship as a function of varying levels of perceived supervisor attributes. In addition, there was little relationship

between supervisor feedback seeking behavior and discrepancy of feedback.

For subordinates as a feedback source, the results indicated that only the attribute of subordinate availability may have served as a moderator in the relationship between subordinate-self rating discrepancy and overall feedback seeking behavior with subordinates. This moderating relationship showed a positive relationship between discrepancy and overall feedback seeking when subordinate availability was high, but a negative relationship between discrepancy and feedback seeking when subordinate availability was low. These results make sense, since when subordinates are seen as highly available for giving feedback, the costs (such as effort costs) associated with seeking them out and asking for feedback may be minimized. On the other hand, when subordinates are perceived as very unavailable for giving feedback, the costs of seeking them out and asking for feedback may seem very great when there is a large discrepancy in ratings. These findings support the contention made by Ashford and Cummings (1983) that availability of the source is an important variable, particularly in relation to an inquiry strategy of feedback seeking.

The findings that neither subordinate credibility nor power served as moderators in the subordinate discrepancy-

feedback seeking relationships were surprising, given that credibility and power were both related to subordinate feedback seeking behavior. However, the lack of moderator status may be partially explained by the lack of relationship between subordinate-self discrepancy and feedback seeking of subordinates.

In general, the lack of support for the moderating effect of source attributes on the feedback discrepancy-feedback seeking behavior relationship for supervisor and subordinate sources may also be due to the analyses used and the low power in the present study for detecting these effects (L. R. James, 1987, personal communication, Oct. 23, 1987).

Goal Characteristics

The results supported Hypothesis 5 that the goal characteristics of importance, uncertainty, and commitment were positively related to overall feedback seeking behavior. It appears that when individuals consider goals to be high in importance, are uncertain about their performance on these goals, and are committed to achieving these goals, they are more inclined to seek feedback about their performance on these goals. These findings are consistent with the ideas by Ashford and Cummings (1983) and various control theorists (Campion & Lord, 1982; Powers, 1973) that goals are the organizing and shaping

determinants of the processes by which individuals use and desire to obtain feedback.

The finding that uncertainty was positively related to overall feedback seeking behavior is consistent with Ashford's (1985) findings, but is inconsistent with Ashford's (1986) findings regarding uncertainty. It should be noted that in all three studies uncertainty was defined differently. In the present study, goal uncertainty was defined as uncertainty about how well one is performing on one's goal. In Ashford's (1985) study, uncertainty was defined as lack of knowledge about the link between the evaluation of performance and the achievement of goals. In Ashford's (1986) study, uncertainty was defined as lack of knowledge about the appropriate behaviors for successfully performing well on the job. While Ashford (1985) found a positive relationship between uncertainty (contingency) and overall feedback seeking behavior, Ashford (1986) found a negative relationship between uncertainty (appropriate behavior) and both monitoring and inquiry. Since the uncertainty variables in the present study and in Ashford's (1985) study both involved evaluation of performance, it makes sense that the results of the present study regarding uncertainty are consistent with Ashford's (1985) results.

The finding that an individual's commitment to his/her goal was positively related to overall feedback

seeking behavior is consistent with ideas by researchers in the goal-setting and control theory areas (Campion & Lord, 1982; Locke et al., 1981). These researchers suggest that feedback about one's performance to attain a goal is interpreted and desired in light of one's commitment toward that goal (Lord & Hanges, in press). It makes sense, then, that in the present study greater commitment to a goal was related to more frequent seeking of feedback about performance aimed at attaining that goal.

In Hypothesis 6 it was predicted that the goal characteristics of importance, uncertainty, and commitment would moderate the relationship between overall discrepancy in self-others' ratings and overall feedback seeking behavior. Overall, goal characteristics were not found to moderate a relationship between discrepancy and feedback seeking. This may be explained partially by the fact, noted previously, that little relationship was found between amount of discrepancy and frequency of feedback seeking behavior. In addition, there may have been little power to detect moderating effects (L. R. James, personal communication, 1987).

Additional Analyses

As noted, since the primary purpose of the present study was to extend knowledge about factors which might be related to feedback seeking behavior (e.g. frequency of

feedback seeking behavior, source relied on for feedback, and feedback seeking strategy utilized), additional analyses were conducted to explore other variables (not originally hypothesized) which might be related to feedback seeking behavior. This was considered to be especially important given the relatively limited amount of research which has been done in this area and the increasing demand by researchers for more investigations of individual feedback seeking behavior in organizations. Thus, additional exploratory analyses were conducted to provide more insight regarding the factors related to managerial feedback seeking behavior. In particular, it seemed important to investigate the actual ratings given by a source in relation to feedback seeking behavior and reliance on that source. In addition it seemed important to gain more information regarding the kinds of variables that might be related to a managers' use of monitoring and inquiry strategies for seeking goal-related feedback. Thus, the feedback seeking strategies of monitoring and inquiry were investigated in relation to discrepancies, actual source ratings, source attributes, and goal characteristics. The results from these additional analyses are discussed below.

Relation of actual source ratings to feedback seeking behavior and reliance. The results pertaining to actual

source ratings suggested that individuals in the present sample tended to seek and rely on a source for feedback more when actual ratings from that source were lower. These results are interesting to note in terms of the original hypotheses regarding rating discrepancies. It was originally hypothesized that an individual's self rating may give an indication of the individual's frame of reference (Ilgen et al., 1979), and thus the discrepancy between one's self rating (their frame of reference) and each source's rating would be an important variable in explaining overall feedback seeking behavior. The results showed that neither the self rating itself nor the self-other rating discrepancy were related to overall feedback seeking behavior; however, the supervisor's rating and subordinates' rating were both negatively related to overall feedback seeking and reliance on the respective source. Thus, the source's actual ratings were useful in their own right in terms of explaining overall feedback seeking behavior and reliance. The fact that source ratings by themselves could help explain the dependent variable supports the widespread use of them in other feedback studies.

The findings pertaining to the actual source ratings are noteworthy in terms of prior research and understanding of the individual goal-feedback process. The present study's finding of a negative relationship between a

source's rating and feedback seeking from that source is analogous, in a way, to Ashford's (1986) finding of a positive relationship between negative beliefs about performance and feedback seeking frequency. That is, it seems logical that lower ratings from a source (a variable in the present study) would lead to or be related to more negative beliefs about performance (a variable in Ashford's (1986) study). Conversely, Ashford (1986) found no relationship between self-confidence (which could be interpreted as positive beliefs about performance) and feedback seeking frequency.

An explanation for the finding that lower ratings were related to more frequent feedback seeking behavior may be that individuals felt a need to seek more feedback information before they could accept these ratings. Or it may be that the lower ratings led individuals to be more committed to their goals, or to consider their goals more important, or to be more uncertain about their goal performance. Another explanation may be that those who received lower ratings subsequently worked harder to achieve their goals, and thus had more motivation to seek feedback about their goal achievement. Thus, future researchers may wish to investigate feedback acceptance, effort toward goal achievement, and goal achievement in relation to feedback seeking behavior.

Relation of variables to monitoring and inquiry strategies. Monitoring. For the supervisor as a source of feedback, individuals in the present study were more likely to use a monitoring strategy to seek feedback from their supervisors when they had received lower ratings from their supervisor and when there was a discrepancy between their supervisor's rating and their self rating. These findings suggest that individuals find supervisor ratings to be important or salient, and respond to them in their monitoring of feedback from their supervisors.

Subjects in the present study were also more likely to use a monitoring strategy with their supervisor when they perceived their supervisor as credible, and when they were committed to their goal, thought the goal was important, and were uncertain of their performance on the goal. These findings suggest that the supervisor is considered an important source for feedback monitoring, particularly when he/she is perceived as credible and when the goals about which feedback is desired are considered important.

For subordinates as a source of feedback, subjects in the present study were more likely to use a monitoring strategy to seek feedback from their subordinates when they had received a lower rating from their supervisor, when they had received a lower rating from their subordinates, and when there was a discrepancy between their supervisor's rating and their self rating. These results are

interesting in that they suggest that subordinates are perceived as viable sources of feedback by managers. In addition, managers may turn to subordinates for feedback as a result of lower or discrepant ratings from their supervisor. This may be due to the possibility that managers perceive fewer face loss costs involved with seeking feedback from their subordinates. Another possibility may be that managers have cultivated good (enduring, beneficial) relationships with some subordinates, and feel able to go to these subordinates for feedback.

Results also indicated that subjects in the present study were more likely to seek feedback from their subordinates using a monitoring strategy when they perceived their subordinates as being available to give feedback, and as having credibility and power. Whereas only the supervisor attribute of credibility was important in determining monitoring of the supervisor for feedback, all three subordinate attributes of credibility, power, and availability were important variables in relation to monitoring subordinates for feedback.

Subjects were more likely to use a monitoring strategy to obtain feedback from their subordinates when they considered their goal important and when they were committed to the goal. However, while uncertainty about

one's performance on the goal was somewhat related to supervisor monitoring, it was not related to subordinate monitoring.

Inquiry. The use of an inquiry strategy to seek feedback is generally considered to involve more potential face loss costs, and may involve more effort costs, than a monitoring strategy (Ashford & Cummings, 1983). In addition, research by Fedor et al. (1987) suggests that an inquiry strategy may involve inference costs as well. In line with this, subjects in the present study were less likely to use an inquiry strategy to seek feedback from their supervisor when there was a discrepancy between their self rating and their subordinates' rating of them. In addition, they were more likely to use an inquiry strategy with their supervisor when they perceived him/her as credible and available, and when they were committed to their goal and considered it important. These findings make sense in light of costs associated with inquiry; it seems likely that potential costs such as inference, effort, and face loss costs of asking a supervisor for feedback would be diminished when the supervisor is perceived as available and credible, and when the goal is important and an individual is committed to the goal. For example, effort costs are diminished when availability of the supervisor is high. In addition, when the supervisor is perceived as credible, and goal importance and

commitment are high, the costs associated with directly asking the supervisor for feedback may not seem as great.

Similar to their use of an inquiry strategy with the supervisor, subjects' use of an inquiry strategy with subordinates was not related to prior feedback ratings or discrepancy in these ratings. Subjects were more likely to use an inquiry strategy to seek feedback from their subordinates when they perceived their subordinates as high in credibility, power, and availability, and when goal importance and commitment were high. Again, it may be that the feedback gained from using an inquiry strategy with subordinates is perceived as worth the associated costs when individuals are committed to their goals, believe these goals are important, and perceive subordinates as high in credibility, power, and availability.

In terms of comparing the correlational results of factors relating to the two strategies, it seems that prior feedback is related more to the use of a monitoring strategy, particularly with the supervisor, than to use of an inquiry strategy. On the other hand, the availability of the feedback source seems to be a more important variable for the use of an inquiry strategy than for a monitoring strategy.

Limitations of the Study and Future Research Directions

Before discussing the theoretical and practical implications of the findings in the present study, some limitations of the present study and suggested avenues for future research are discussed below. The limitations relate mainly to the measures used in the study, the time frame of the study, and unmeasured stages and variables in the study.

One limitation of the present study relates to the measures used. Several measures were developed specifically for use in the present study and so must be considered exploratory until further research is done investigating these variables. The measures developed specifically for this study include the goal characteristic, source attribute, and source reliance measures, as well as some feedback seeking items.

With regard to the feedback seeking dependent variables of interest, one limitation may have been the use of Likert-scaled questionnaire items to measure feedback seeking behavior. Since much of feedback seeking using a monitoring strategy may at times be unconscious, asking an individual to consciously recall and report the frequency of this behavior may be too demanding to get a reliable measure. In addition, some individuals may have unique ways of monitoring others for feedback which were not

covered in the feedback seeking items used in the present study. It should be noted that in the pilot study for the present investigation, open-ended questions pertaining to additional methods of feedback seeking behavior did not reveal any unique methods of seeking feedback but did reveal that family and friends (outside of work) may be considered viable sources of feedback. This suggests that it may be beneficial for future research to investigate feedback seeking behavior within nonwork domains in addition to feedback seeking within the work environment.

To address the possible limitations associated with measuring feedback seeking behavior, future research should use other methods, in addition to the questionnaire method used here, to measure feedback seeking behavior. For example, subjects could be asked to freely recall, or brainstorm, ways in which they obtain feedback from various sources. Another possible methodology could be to ask subjects to record their feedback seeking behavior as it occurs, for instance by keeping a diary of feedback seeking incidents. In addition, supervisors, coworkers, and subordinates of a subject could be asked to report their perceptions of the subject's feedback seeking behavior, and these perceptions could be studied in relation to the subject's self-reported behavior. Lab studies are another

avenue for investigating feedback seeking behavior without, or in addition to, using questionnaire measures.

Another potential measurement problem in the present study relates to the averaging of the SCAN feedback ratings which were used to determine the discrepancy in feedback. For each person's developmental goal dimension, the ratings on the behavioral items relating to that goal dimension (e.g. oral communication) were averaged to get a rating from each source. For example, each goal dimension was measured by two to seven items, and the ratings for each of the items were averaged to obtain an overall dimension rating for each source. These averaged dimension ratings were then used to determine the discrepancy in ratings between sources. It was assumed that this averaged rating from each source for each dimension would be considered an important one for the attention of subjects during the workshop, and would thus be related to their later feedback seeking endeavors. During the workshop, however, it may have been that an individual only paid attention to the ratings received for a particular item (e.g. "Able to share thoughts, ideas, reactions perceptions, and feelings with others in a non-threatening, non-judgmental manner") pertaining to the developmental dimension he/she chose as a goal, rather than the averaged ratings for the whole dimension.

Another potential measurement limitation in the present study is that, since most measures were obtained from one questionnaire, common method variance cannot be ruled out as an explanation for some of the observed results.

Other potential measurement limitations pertain to the discrepancy, or difference, scores used in the present study. While difference scores are often utilized in the literature, some researchers (c.f. Cronbach & Furby, 1970) have suggested that difference scores tend to be unreliable. In addition, restriction of range on the discrepancy scores for the present study seemed to be another problem with the rating discrepancy variables. That is, in general, the differences between managers' self ratings and ratings from other sources were not large.

In addition to various measurement problems, another general limitation to this study, and to previous studies of feedback seeking behavior, pertains to the time frame in which the study took place. The specific problem associated with this is that most of the measures in the study were collected by self-report questionnaire; thus, most of the data is of a cross-sectional nature, and causal inferences can not be made. For instance, it can not be assumed that seeking feedback did not lead to higher ratings of goal commitment or importance, even though the converse causal order also makes sense. It also can not be

known whether feedback ratings obtained during the workshop affected the perceived credibility or other attributes rated on the questionnaire.

Attempting to attain a goal, getting feedback about one's performance, and responding to this feedback all involve various stages of an individual goal-feedback process. Since it can be assumed that individuals go through these stages differently, there is no way of knowing where the individuals in the present study were in their goal-feedback processes when they completed the questionnaire. For instance, some subjects could have still been pondering the feedback they received during the workshop, while other subjects may have long since integrated that feedback with other feedback they had sought since the workshop, while still others may have attained their developmental goal and so stopped seeking feedback long ago. It should be noted that the present study, unlike other feedback studies, did attempt to partially address the goal-feedback time frame issue by prefacing questions in the followup survey with "Since the Skills Assessment Workshop and while working toward your #1 IDP competency area, ...", in order to try to get subjects thinking along the same time frame.

Related to this time frame issue, future researchers may wish to investigate various stages of the goal-feedback

process in relation to feedback seeking behavior. For example, the choice process by which individuals select their goals may affect the source, strategy, and frequency of their subsequent feedback seeking behavior.

Other variables which seem important to investigate in the future are the various costs, such as face loss, effort, and inference costs, associated with different strategies and sources of feedback seeking. As mentioned in the discussion of hypotheses results above, these costs may have affected the hypothesized relationships among variables in the present study, particularly those relating to the variables of discrepancy, supervisor power, and feedback seeking behavior.

The subjects' reasons for seeking feedback on their performance goal would also seem important to examine in future research. Individuals may seek feedback to obtain information regarding how their performance is evaluated by others, or they may seek feedback for political or impression management reasons (Larson, 1986). Their reason for seeking feedback may affect the relationship between supervisor-self rating discrepancy, supervisor power, and inquiry or monitoring of the supervisor for feedback. For example, when individuals perceive a discrepancy between their supervisor's evaluation of them and their own self-evaluation, and they perceive their supervisor as high in power, they may decide to use an inquiry strategy to seek

additional feedback from their supervisor for political/impression management reasons. By using an inquiry strategy, individuals may have the opportunity to present their own perceptions about their performance, and resolve the conflict or discrepancy favorably for themselves. On the other hand, individuals who wish to seek feedback to obtain performance evaluation information may choose to use a monitoring strategy, given that feedback obtained through an inquiry strategy may be perceived as distorted (e.g. made more favorable (Fedor et al., 1987)).

Ilgen, Fisher, and Taylor (1979) suggest various stages involved in individuals' responses to feedback, such as perception, acceptance and desire to respond to feedback, and future researchers may want to investigate these stages more explicitly in relation to feedback seeking behavior. As suggested in the discussion of hypotheses above, individuals' place in these stages may affect their feedback seeking behavior. For instance, acceptance of feedback received may sometimes moderate the relationship between discrepancy and feedback seeking behavior, in that there may be a greater relationship when acceptance is low.

Another variable for future research to investigate may be the type of goal for which feedback was sought,

since it is possible that different types of goals in themselves are related to different patterns of feedback seeking behavior. Although every subject in the study answered questions about their feedback seeking behavior in relation to one developmental goal which they chose during a workshop, there was a wide variety of developmental goals chosen. Analysis of subjects' goals revealed that the six most popular developmental goal dimensions (chosen by about 55% of the subjects) were as follows: oral communication, developing subordinates, influencing others, stress management, planning and organizing, and teamwork.

Other variables potentially important for future study in explaining feedback seeking behavior include many individual difference and personality variables. For instance, it seems plausible that self-esteem, self-confidence, and need for achievement variables could affect individuals' choice of goals and also their goal commitment and subsequent feedback seeking behavior. Consistent with this, Ashford (1986) has studied self-confidence in relation to overall monitoring and inquiry for the goal of job performance, and Weiss and Knight (1980) have studied self-esteem in relation to information search. In addition, locus of control may affect the tendency to seek feedback from others, and so may have affected the relationships in the present study between discrepancy, source attributes, and feedback seeking behavior. Related

to this, individuals' preferences for feedback from others may be related to their feedback seeking behavior (Herold & Parsons, 1986).

In terms of the results from the present study, one variable which could not be measured but which may have influenced the results pertained to the organizational atmosphere in which the study took place. The study was conducted with middle level managers in a very large, bureaucratic organization which had been undergoing structural change in many of its divisions for several years. It is possible that, due to the many changes in their organization, managers in the present study were experiencing some "contextual uncertainty" and/or role ambiguity, both of which Ashford and Cummings (1985) found to be positively related to feedback seeking frequency.

It should also be noted that compared to the samples used in previous studies of feedback seeking behavior, the present sample was older in age and tenure by about 10 - 15 years. Since previous research by Ashford and Cummings (1985) found a significantly negative relationship between tenure and feedback seeking, it is interesting to note that in the present study, even with its longer-tenured sample, an overall moderate level of feedback seeking behavior was reported and some significant relationships among the variables studied to the feedback seeking behavior

dependent variables were found. Consistent with Ashford and Cummings' (1985) findings regarding tenure, however, the mean overall feedback seeking behavior frequency for managers in the present study was observed to be lower than that reported in Ashford and Cummings' (1985) and Ashford's (1986) studies, with their younger-tenured samples. In addition, in this study there was a negative correlation between organizational tenure and feedback seeking and reliance on the supervisor ($r = -.20$).

Theoretical Implications

The results of the present study demonstrate the need for more research aimed at increased understanding of individual feedback seeking behavior in organizations. While only a few studies have explicitly investigated feedback seeking behavior in organizations, the present study differed from and extended past research by taking a more micro, individualistic, approach to the study of feedback seeking behavior by its investigation of individually held goals, and feedback seeking behavior in relation to specific past feedback regarding performance on those goals. The present study also extended past research by investigating the source of feedback seeking efforts, and the relation of past feedback and source attributes to these efforts.

The results of the present study highlight the need to study each source of feedback seeking behavior and each strategy of feedback seeking behavior separately. It was found in this study that subordinates were perceived as a viable source of feedback by the managers studied. Indeed, feedback seeking of subordinates was just as frequent as feedback seeking of the supervisor.

It was also found that a monitoring strategy was the most frequently used strategy of feedback seeking behavior. In addition, the variables investigated related differently to monitoring and inquiry strategies. For instance, discrepancy and goal uncertainty were related to the use of a monitoring strategy, while source availability seemed to be a more important variable for the use of an inquiry strategy. These results suggest that future researchers of feedback seeking behavior should investigate monitoring and inquiry separately.

Although the hypotheses regarding the relationship of self-other past feedback discrepancy and feedback seeking behavior were largely unsupported in the present study, it is felt that future research should continue to study the relation of past feedback to feedback seeking behavior. Past feedback ratings from the supervisor and subordinates were related negatively to feedback seeking behavior from these sources in the present study.

From an individual process point of view, it makes sense that individual goal-setting, feedback seeking, feedback receiving, perceiving, accepting, and responding are continuous, interrelated processes. While researchers have offered various models of different parts of this process, the present study points out the need for a more integrated, detailed model of the goal-feedback process from an individual perspective. Hopefully, this model will develop as more research in the feedback seeking area is accomplished.

As discussed previously, future research should continue to study the sources and strategies of feedback seeking behavior. In particular, individuals' choice among sources and strategies has yet to be investigated. Also, in addition to studying the supervisor and peers as feedback sources, the self as a source of feedback should be investigated, as well as should subordinates. Variables to be investigated in relation to feedback seeking source and strategy could include past feedback episodes, feedback consistency, goal achievement, role relationships, locus of control, self-esteem, and other individual difference variables. In order to understand feedback seeking behavior at the individual level, lab studies may offer opportunities to investigate in more detail various individual variables, such as effects of past feedback, goal conditions, and individual difference variables.

Practical Implications

Practical implications from the results of the present study relate mainly to perceptions and recognitions regarding organizations' feedback environments (Herold & Parsons, 1985). Larson (1986) discusses the need for organizations to strive for a healthy feedback climate. This can be defined as:

. . . the willingness of organizational members to seek and respond positively to performance feedback, and the willingness of supervisors and coworkers to provide accurate and timely feedback to their fellow workers. Presumably, the combination of active feedback seeking by organizational members with active and informal feedback giving by supervisors and coworkers will increase individuals' motivations to perform at full capacity and to give free expression to the full range of their skills and abilities (p. 22).

Related to Larson's description of a healthy feedback climate, Ashford and Cummings (1985) exhort organizations to 'open up feedback channels', so that employees can obtain feedback through their own efforts.

The finding in the present study that lower feedback ratings from a supervisor or subordinates were related to more frequent feedback seeking behaviors suggests that organizational members should be particularly cognizant of the need to open up feedback channels when feedback is less positive.

In addition, in the present study it was also found that monitoring was overall the most frequently used strategy of feedback seeking, and was engaged in more frequently when feedback ratings from the supervisor were lower than self ratings. Since monitoring requires more inference than inquiry, the findings that monitoring was the most frequently used strategy and was particularly related to lower-than-expected feedback, suggest that organizational members should be particularly aware of their actions which may be interpreted/monitored as feedback. With regard to these monitored actions, Ashford and Cummings (1985) note:

. . . managers need to become more self-conscious about their own actions and how employees are interpreting them as feedback. . . . Managers need to be aware that through their behavior they signal to employees those behaviors they most value, those employees they most esteem, and what strategies really lead to goal attainment in that setting. Becoming conscious of such signals will help managers to portray a feedback picture consistent with their verbal appraisal of employees' behaviors (p. 78).

The finding in the present study that subordinates were monitored and inquired of for feedback just as frequently as were supervisors suggests that subordinates should be recognized as a viable source of feedback in the organization environment. Along with this, organizations' feedback channels should be opened up to include subordinates.

In order for the feedback climate to be healthy (Larson, 1986), and for feedback channels to be perceived as open (Ashford & Cummings, 1985), findings from the present study suggest that feedback sources must be perceived as credible, and, especially for an inquiry strategy, as available.

Other findings from the present study suggest it may be important for feedback channels to be open when individuals are committed to their goals, perceive their goals as important, and when they are not certain of their performance on these goals. The present study found that when these goal conditions existed, feedback seeking behavior was more frequent.

In conclusion, the present study focused on the relation of past feedback messages, goal characteristics, and perceived source attributes to feedback seeking behavior. More research is needed to continue to gain an understanding of individuals' feedback seeking behavior in organizations. This understanding is important because, as Ashford and Cummings (1983) point out, feedback is a resource for individuals in organizations in many ways. At a basic level, feedback is information about past performance which can help individuals achieve their goals. Thus, understanding when individuals seek feedback, how they seek feedback, and from whom they seek feedback, is an important area for continued investigation.

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APPENDICES

APPENDIX A
SAMPLE SCAN FEEDBACK FORM

Name: _____

Job Title: _____

		Proficiency Level					Proficiency Gap		
		NOT REQUIRED	LOW	MODERATE	HIGH	VERY HIGH	S	S	O
		1	2	3	4	5	S	u	t
							i	p	h
							f	r.	e
									r
<u>Oral Communication</u>	Job								
	Self								
	Sup								
	Other								
<u>Written Communication</u>	Job								
	Self								
	Sup								
	Other								
<u>Supervising</u>	Job								
	Self								
	Sup								
	Other								
<u>Teamwork</u>	Job								
	Self								
	Sup								
	Other								
<u>Developing Subordinates</u>	Job								
	Self								
	Sup								
	Other								
<u>Organisational Knowledge</u>	Job								
	Self								
	Sup								
	Other								

KEY

Job - Ratings of proficiency required to perform the job (all raters).

Self - Self ratings of current proficiency level.

Sup - Supervisor's rating of current proficiency.

Other - Subordinate/Peer ratings of current proficiency.

Name: _____

Job Title: _____

		Importance Level					Importance Gap	
		NOT IMP.	MODERATELY IMP.	IMPORTANT	VERY IMP.	CRITICAL	S S e i f	O u p o r
		1	2	3	4	5		
Oral Communication								
1. Effectively and clearly presents and expresses information orally...	Self _____							
	Sup _____							
	Other _____							
2. Orally answers questions without being lengthy and confusing.	Self _____							
	Sup _____							
	Other _____							
3. Actively seeks information from others; pays attention to verbal and non-verbal messages...	Self _____							
	Sup _____							
	Other _____							
4. Able to share thoughts, ideas, reactions, etc... in a non-threatening, non-judgmental manner.	Self _____							
	Sup _____							
	Other _____							
Written Communication								
5. Writes complete, accurate, and clear reports, and other correspondence.	Self _____							
	Sup _____							
	Other _____							
6. Expresses information, instructions, and ideas in writing in a timely and clear fashion...	Self _____							
	Sup _____							
	Other _____							

KEY

Self - Self ratings of importance of competency.

Sup - Supervisor's rating of importance of competency.

Other - Subordinate/Peer ratings of importance of competency.

APPENDIX B
FOLLOWUP QUESTIONNAIRE

Memorandum

FOLLOWUP STUDY OF SKILLS ASSESSMENT WORKSHOP PARTICIPANTS

How have you been doing on your Individual Development Plan objectives?

The attached survey is being given to former participants of the Skills Assessment Workshop (SAW). The survey is part of a study to investigate how SAW participants have progressed in pursuing their objectives, and how the SAW may be improved to better meet the needs of TVA supervisors.

During the SAW you created an Individual Development Plan (IDP) in which you set one or more specific developmental objectives for yourself. The focus of this followup study will be on the developmental objective most important to you. Specifically, the study focuses on the progress SAW participants have made in following up on their most important IDP objective, and the feedback they used to know how well they were performing on these objectives. In addition to helping the Individual Development staff improve the SAW, answers to these questions may prove helpful to you personally when you reassess how to fully attain your developmental objectives.

Please complete all the survey questions as best you can, even if you have already achieved your IDP objectives, or have not even begun to address them. Your completion of the attached survey is very important in order to obtain a complete, true picture from the study. Your answers to the survey will remain completely confidential; no individuals will ever be identified in any way, and only group results will be assessed.

The survey should take about 20 minutes to complete, and your help is sincerely appreciated. Please complete this survey promptly and return it to . If you have any questions or comments regarding this survey, or would like to see a summary of its findings, please feel free to contact , survey coordinator, at 6153-K. Thank you for your assistance.

Memorandum

FOLLOWUP STUDY OF SKILLS ASSESSMENT WORKSHOP PARTICIPANTS

Your help is greatly needed in a followup study of the Skills Assessment Workshop (SAW). Because there are only a limited number of SAW participants, your completion of the study's survey is critical in order to obtain a complete, true picture from the study. Attached is a copy of the survey, in case you cannot locate or did not receive a copy of it earlier.

The study is designed to gain an understanding of how SAW participants have progressed on their developmental objectives and the feedback they used during this process. In addition to helping the Individual Development staff better tailor the SAW to meet individuals' needs, your responses to the survey may prove helpful to you personally when you reassess how to fully obtain your developmental objectives.

Your completion of the survey is very important, even if you have already achieved your developmental objectives or have not even begun to address them. Please complete the attached survey and return it to 305 MIB-K as soon as possible. Your responses to the survey will be completely confidential; only group-level data will be assessed.

I need your input and greatly appreciate your participation in this study. Please feel free to call _____ (who is in charge of this followup survey) at 6153-K if you have questions or would like to see a summary of the study's findings. Thank you so much for your assistance.

Memorandum

FOLLOWUP STUDY OF SKILLS ASSESSMENT WORKSHOP PARTICIPANTS

A while ago you were sent a survey for the followup study of Skills Assessment Workshop participants. Because of the limited number of participants in the Skills Assessment Workshop, your completion of the survey is still greatly needed. Attached is a copy of the survey, in case you did not receive one or no longer have it.

The study investigates how SAW participants have followed up on their most important objectives, and the feedback they used during this process. In addition to helping the Individual Development staff improve the workshop, your completion of the questionnaire should prove helpful to you personally when you reevaluate your objectives.

Please complete the attached survey. Even if you have already achieved your individual development objectives, or have not even begun to achieve them, your completion of the survey is absolutely critical for obtaining representative results from the study. Be assured that your responses to the survey will be completely confidential; only group results will be assessed.

Thank you for taking the time to complete this survey. If you have any questions regarding the survey, or would like to see a summary of its findings, please feel free to call _____, survey coordinator, at 6153-K.

SKILLS ASSESSMENT WORKSHOP FOLLOWUP

As a result of the Skills Assessment Workshop (SAW), you selected one or more competency areas in which you would like to improve. You then completed an Individual Development Plan (IDP) to help you meet your goals of improvement in these chosen competency areas. The following sections of this survey pertain to your development in the competency area you have considered the most important objective in your IDP. You may wish to refer to your SAW notebook or to a list of sixteen competencies assessed during the workshop (included in the last page of this survey) to help you complete the next sections. In the following space, please indicate the competency area included in your IDP you have considered most important:

#1 IDP Competency Area: _____

PART A. #1 Competency Area.

Keeping in mind the competency area you indicated above as pertaining to your most important developmental objective, please CIRCLE the one number next to each statement which best indicates the extent to which that statement has applied to you since the SAW.

	To no extent	A little extent	Some extent	Considerable	To a very great extent
1. I have met my goals for my #1 competency area	1	2	3	4	5
2. I have been committed to improving my skills in my #1 competency area..	1	2	3	4	5
3. My supervisor can help me know how well I am doing in this competency area	1	2	3	4	5
4. My supervisor is familiar with and knowledgeable about my performance in this competency area	1	2	3	4	5
5. My supervisor has the ability to accurately rate my performance in this competency area.....	1	2	3	4	5
6. My subordinate(s) can help me know how well I'm doing in my #1 competency area	1	2	3	4	5
7. My subordinates are familiar with and knowledgeable about my performance in this competency area	1	2	3	4	5
8. My subordinate(s) have the ability to accurately rate my performance in this competency area	1	2	3	4	5
9. I have been unsure about my performance or ability in this competency .	1	2	3	4	5
10. Being proficient in this #1 competency area is important for meeting my goals	1	2	3	4	5
11. I have worried that my performance in this competency area may be inadequate for meeting my personal goals	1	2	3	4	5
12. My coworker(s) (i.e. people at my organizational level) are familiar with and knowledgeable about my performance in this competency area	1	2	3	4	5
13. I would believe my subordinates' ratings of my performance in this competency area	1	2	3	4	5
14. I value my achievement in this #1 competency area	1	2	3	4	5
15. I would believe my supervisor's ratings of my performance in this competency area	1	2	3	4	5
16. I am determined to achieve my IDP objectives for this competency area .	1	2	3	4	5
17. I am willing to work at the level required to achieve my objectives for this competency area	1	2	3	4	5

PART B. Feedback About Your #1 IDP Competency Area.

Below, please CIRCLE the number which best describes your use of information about how well you've been doing (feedback) on your #1 IDP competency area. When rating each source of feedback, think of the one person or persons in that category on whom you were most likely to depend for feedback about your performance in your #1 IDP competency area.

1. While working toward your #1 IDP competency area, to what extent did you rely on each of the following sources of feedback information to help you know how well you were doing on this competency:

	To no extent	A little	Some	Considerable	To a very great extent
a. Your supervisor	1	2	3	4	5
b. Your subordinate(s)	1	2	3	4	5
c. Your coworker(s)	1	2	3	4	5
d. Your own feelings and ideas	1	2	3	4	5
e. Results of your work itself	1	2	3	4	5
f. Other source(s) (please describe)	1	2	3	4	5

2. Since the Skills Assessment Workshop and while working toward your #1 IDP competency area, how frequently did you:

a. Seek feedback regarding your performance on this competency 1 2 3 4 5

b. Ask:

- your <u>supervisor</u> for feedback about your performance in this competency area	1	2	3	4	5
- a <u>subordinate</u> for feedback about your performance in this competency area	1	2	3	4	5
- a <u>coworker</u> for feedback about your performance in this competency area	1	2	3	4	5

c. Pay attention to:

- how your <u>supervisor</u> acts toward you in order to understand how he/she perceives and evaluates your performance in this competency area	1	2	3	4	5
- how <u>coworker(s)</u> act toward you in order to understand how they perceive and evaluate your performance in this competency area	1	2	3	4	5
- how your <u>subordinate(s)</u> act toward you in order to know how they evaluate your performance in this competency area....	1	2	3	4	5

d. Observe:

- the characteristics of people who are rewarded by your <u>supervisor</u> and use this for your own feedback information.....	1	2	3	4	5
- the characteristics of <u>subordinates</u> who are rewarded (e.g. with praise, recognition, etc.) on this competency area, and use this as feedback on your own performance	1	2	3	4	5
- the characteristics of <u>coworker(s)</u> who have received rewards (e.g. praise, promotions, etc.) for their performance on this competency area and use this as feedback about your own performance	1	2	3	4	5

e. Compare yourself with:

- your <u>supervisor</u> on this competency area	1	2	3	4	5
- your <u>subordinate(s)</u> on this competency area	1	2	3	4	5
- your <u>coworker(s)</u> on this competency area	1	2	3	4	5

PART B. (cont.)

2. Since the Skills Assessment-Workshop and while working toward your #1 IDP competency area, how frequently did you:

f. Observe:

- | | Very Infrequently | Infrequently | Neither Frequently
nor Infrequently | Frequently | Very Frequently |
|--|-------------------|--------------|--|------------|-----------------|
| - your <u>supervisor's</u> reactions to you when you behaved in ways to improve in this competency area..... | 1 | 2 | 3 | 4 | 5 |
| - <u>subordinate(s)</u> ' reactions to you when you behaved in ways to improve this competency area | 1 | 2 | 3 | 4 | 5 |
| - <u>coworker(s)</u> ' reactions to you when you behaved in ways to improve in this competency area | 1 | 2 | 3 | 4 | 5 |

- g. Think about how well you're doing and use your own thoughts as feedback about this competency area
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

- h. Look at the results of your work, and use this information to judge how well you're doing in this competency area
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

i. How frequently, overall, did you seek feedback:

- | | | | | | |
|--|---|---|---|---|---|
| - from your <u>supervisor</u> regarding how well you're doing on your #1 competency area | 1 | 2 | 3 | 4 | 5 |
| - from a <u>subordinate</u> regarding how well you're doing on this #1 competency area | 1 | 2 | 3 | 4 | 5 |
| - from a <u>coworker</u> regarding your performance on this #1 competency area | 1 | 2 | 3 | 4 | 5 |

PART C. SCAN Feedback About Your #1 Competency Area.

The following questions pertain to the SCAN overall proficiency ratings you received during the SAW for your #1 IDP competency area. Recall that this SCAN feedback was obtained by the questionnaires you, your supervisor, and your subordinates completed prior to the SAW. You may wish to refer to your SAW notes and workbook if you do not recall your overall SCAN proficiency ratings for this competency area.

1. For your #1 competency area, please CIRCLE the SCAN overall Proficiency Level Rating you received during the SAW from each of the three sources listed below (you may need to write in decimal points if they were included in your SCAN ratings):

	Very Low	Low	Moderate	High	Very High
Self	1	2	3	4	5
Supervisor	1	2	3	4	5
Others	1	2	3	4	5

For some SAW participants, the "Others" category consisted of ratings from both coworkers and subordinates. Below, please CIRCLE your "best guesses" as to the ratings given you by both your coworkers and subordinates, separately, for this competency. Please complete the following items even if you know all your "Others" category ratings came from the same source.

2. At the time of the SAW, how would your subordinates have rated you on this #1 competency area? 1 2 3 4 5
3. At the time of the SAW, how would your coworkers have rated you on this competency area? 1 2 3 4 5
4. Below, please estimate current proficiency ratings of you on this competency area, by writing a number from 1 to 5 in the space provided.

Self _____

Supervisor _____

Coworkers _____

Subordinates _____

PART D. WORK SITUATION.

Please CIRCLE the one number which best indicates your agreement with each statement below.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. My job situation allows me to work toward my IDP objectives	1	2	3	4	5
2. The SAW helped me to diagnose my job situation and set realistic goals for development	1	2	3	4	5
3. My supervisor rewards my good work	1	2	3	4	5
4. I am influenced by my supervisor's wishes at work	1	2	3	4	5
5. My subordinate(s) have the ability to influence my behavior	1	2	3	4	5
6. I identify with my coworkers (others at my organizational level)	1	2	3	4	5
7. Working with my subordinates is rewarding	1	2	3	4	5
8. My supervisor is available when I need to consult him/her	1	2	3	4	5
9. I am influenced by my subordinates' wishes at work	1	2	3	4	5
10. My subordinate(s) give me credit where credit is due	1	2	3	4	5
11. My supervisor would let me know about it if I performed poorly	1	2	3	4	5
12. My supervisor has control over rewards that are important to me	1	2	3	4	5
13. My subordinate(s) are very proficient	1	2	3	4	5
14. My supervisor has the authority to tell me what to do	1	2	3	4	5
15. I identify with my subordinate(s)	1	2	3	4	5
16. I admire my supervisor	1	2	3	4	5
17. My supervisor has the ability to influence my behavior	1	2	3	4	5
18. My subordinates have control over rewards that are important to me	1	2	3	4	5
19. My supervisor is available and willing to give me feedback about my job performance when I want it	1	2	3	4	5
20. My supervisor is very proficient	1	2	3	4	5
21. I value rewards that my coworkers can give me	1	2	3	4	5
22. One of my subordinates is usually available when I need to consult him/her	1	2	3	4	5
23. My subordinates are available and willing to give me feedback about my performance when I want it	1	2	3	4	5
24. Some of my coworkers have the ability to influence my behavior	1	2	3	4	5
25. My supervisor has the right to tell me what to do	1	2	3	4	5
26. I can count on a coworker to give me feedback about my performance when I want it	1	2	3	4	5
27. Overall, I am satisfied with the outcome of the SAW	1	2	3	4	5

PART E. SAW Improvement.

1. What factors have hindered you in fully meeting your IDP goals?

2. How could the Skills Assessment Workshop be improved?

3. Other comments?

So that we may combine your responses with those of other employees in the same workshop, grade, division, etc., we ask that you indicate your social security number below. Your responses to this survey will be completely confidential, and only group results will be assessed.

SSN: _ _ _ _ _

The following is a list of 16 competency areas which are among those assessed by the Skills Assessment Workshop (SAW). When creating their Individual Development Plans (IDP's), most SAW participants set specific developmental objectives which pertain to one or more of these 16 competency areas. You may find this list useful, therefore, when reporting the competency area included in your IDP which you have considered most important.

Competency Areas:

Oral Communication
Written Communication
Supervising
Teamwork
Developing Subordinates
Organizational Knowledge
Personnel Practices
Technical/Professional Competence
Problem Solving and Analysis
Decisionmaking
Planning and Organizing
Flexibility
Influencing Others
Self-Motivation
Innovating
Tolerance of Stress

VITA

Ann Mogan Herd was born in Chicago, Illinois on August 4, 1961. She is the daughter of Norma M. Mogan and Timothy L. Mogan. She attended primary and secondary schools in Elmhurst, Illinois; New Ulm, Minnesota; Louisville, Kentucky; and Shelbyville, Kentucky. She graduated from Shelby County High School in May, 1979. In May, 1983 she graduated from The University of Kentucky with a B.A. in psychology.

Ann began graduate study in the Industrial/Organizational Psychology Program at the University of Tennessee, Knoxville in the fall of 1983. While studying for her degree she completed several research projects and taught in the Departments of Management and Office Systems Management. In addition, she was employed as a managerial consultant for Aluminum Company of America (Alcoa, Tennessee), and as a research analyst at the Tennessee Valley Authority (Knoxville, Tennessee). She received the Doctor of Philosophy degree in December, 1987.