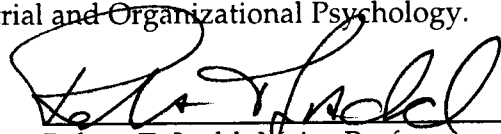
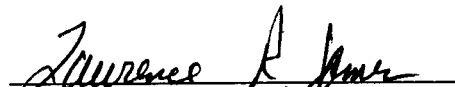


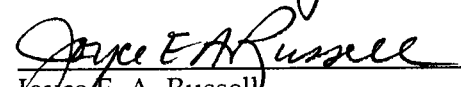
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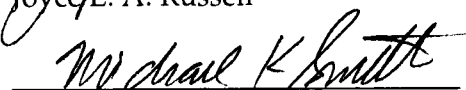
I am submitting herewith a dissertation written by Jeffrey Darren Kudisch entitled "Factors Related to Participants' Acceptance of Developmental Assessment Center Feedback." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Industrial and Organizational Psychology.


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FACTORS RELATED TO PARTICIPANTS' ACCEPTANCE OF
DEVELOPMENTAL ASSESSMENT CENTER FEEDBACK

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

Jeffrey Darren Kudisch
December 1996

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DEDICATION

This dissertation is dedicated to my wife and best friend, Carol. Her continual love, encouragement, support, and infinite patience and understanding played a key role in reaching this cornerstone of my life. I will be indepted to her forever.

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Lastly, I would like to thank Personnel Assessment Systems, Inc. for providing me with the data set used in this study. Without their support, this research would not have been possible.

ABSTRACT

Despite the rising popularity of developmental assessment centers, little research has systematically examined the effectiveness of this approach. In particular, beyond looking at overall reactions to assessment centers, very few studies have explored those factors which may affect individuals' responses to feedback. The purpose of this study was two-fold: (1) to examine the influence of feedback source, message, recipient, and context characteristics on feedback acceptance; and (2) to identify the most important determinant(s) of feedback acceptance. Several hypotheses based on past performance appraisal and assessment center research were tested using data from 107 government employees who attended a one and one-half day assessment center for management development. Significant zero-order correlation results revealed that recipients were more likely to perceive their feedback as accurate when they perceived assessors as experts, feedback as favorable, exercises as job-related, and when they enjoyed the overall assessment experience. Recipients with higher analytic, critical thinking, judgment, and self-confidence skills were also more apt to be receptive to feedback. On the other hand, factors unrelated to acceptance included recipients' personality characteristics (e.g., tolerance toward others' beliefs and values, flexibility, realization of potential) and age. Results using dominance analysis indicated that perceived job-relatedness was the most important determinant of acceptance, while cognitive-related skills were the least important contributors. Implications of the findings and suggestions for future research are addressed.

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CHAPTER I

INTRODUCTION

While organizations continue to use assessment centers for selection and promotion purposes, more and more organizations are shifting their emphasis toward developmental assessment (Hollenbeck, 1990; Griffiths & Allen, 1987; Griffiths & Goodge, 1994; Iles, Robertson, & Rout, 1989). This trend is not surprising for several reasons, including: (1) the growing belief among businesses that well-trained workforces are requisite for achieving a competitive advantage (Blickstein, 1996; Huselid, 1995; Liebowitz, 1995); (2) the belief among Human Resource Management (HRM) professionals that simulation tools provide sound devices for developing organizational talent (Boehm, 1985; Thornton & Cleveland, 1990); and (3) nearly four decades of research which suggests that assessment centers are one of the best predictors of managerial potential and career success (Cascio, 1987; Gaugler, Rosenthal, Thornton, & Bentson, 1987; Schmitt, Gooding, Noe, & Kirsch, 1984; Thornton & Byham, 1982).

The objectives of developmental assessment centers may range from simply diagnosing employee's training needs (c.f., Thornton, 1992; Thornton & Byham, 1982; Boehm & Hoyle, 1977), to offering specific personal developmental plans and recommendations for each dimension rated (c.f., Engelbrecht & Fischer, 1995; Goodge, 1995; Jones & Whitmore, 1995), to actually developing managerial skills through the use of immediate on-site feedback and opportunities for active practice (c.f., Griffiths & Allen, 1987; Griffiths & Goodge, 1994; Thornton, 1992). A common assumption of such approaches is that they provide an accurate diagnosis of participants' strengths and weaknesses. It is also assumed that such feedback, if taken seriously, should increase promotion potential (Thornton, 1992). Hence, from a developmental perspective, the usefulness and utility of assessment center feedback is largely

contingent on the extent to which participants accept their assessment results (i.e., they believe that the feedback accurately reflects their performance), and ultimately, the extent to which they use this information to identify and engage in specific training and development activities (Boehm, 1985; Boehm & Hoyle, 1977; Jones & Whitmore, 1995; Thornton, 1992). While both types of reactions are essential for individual growth and organizational success, the former places a ceiling on the latter. That is, feedback acceptance is a necessary precursor to behavior change.

Unfortunately, the rising popularity of this new wave of assessment centers has not been accompanied by the same amount of systematic research afforded to centers designed for administrative purposes (Engelbrecht & Fischer, 1995; Jones & Whitmore, 1995; Keys & Wolfe, 1988). In particular, it is not clear what factors influence participants' reactions to feedback. While there have been several studies which have focused on participants' overall reactions toward assessment center feedback (Dodd, 1977; Rotolo & Kudisch, 1996; Teel & DuBois, 1983; Thornton & Byham, 1982), few researchers have examined those contextual and individual difference factors related to feedback acceptance.

Factors Related to Feedback Acceptance (Accuracy)

In terms of contextual influences, past assessment center research suggests that participants are more likely to accept feedback when: (1) the feedback is presented by a knowledgeable source; (2) the source providing the feedback appears interested in their development; (3) the feedback is perceived as favorable; (4) the feedback is accompanied by supporting evidence and examples; and (5) the feedback is based on job-related exercises (c.f., Burd & Ryan, 1993; Fleenor, 1988; Goodge, 1995). There is also some evidence that acceptance of feedback is positively related to individual difference characteristics, such as: (1) overall assessment center ratings; (2) decision-making skills; (3) critical thinking skills; (4) and personality dimensions such as

tolerance of others, flexibility, and realization of one's potential (Baisden & Roberson, 1993; Jones & Whitmore, 1995).

These findings are consistent with a large body of performance appraisal (PA) literature which has examined reactions to receiving feedback (Ilgen, Fisher, and Taylor, 1979; Taylor, Fisher, and Ilgen, 1984). Ilgen et al.'s (1979) landmark model proposes that whether or not feedback will be accepted or perceived as accurate depends on three main factors: (1) characteristics of the feedback source; (2) the nature of the feedback itself; and (3) characteristics of the recipient. In terms of source characteristics, both the perceived credibility and position power of the feedback provider appear to be important (Albright & Levy, 1995; Bannister, 1986; Fecteau, 1996; Fedor, Eder, & Buckley, 1989; Greller, 1980; Greller & Herold, 1975; Halperin, Synder, Shenkel, & Houston, 1976; Stone, Gueutal, & McIntosh, 1984; Synder & Newburg, 1981). Feedback from high expertise and high status sources is generally viewed as having greater credibility or accuracy than feedback from low expertise or low status sources.

Characteristics of the message may also play an important role in feedback acceptance. For instance, participants tend to respond more favorably when specific examples of behavior are offered (Ilgen et al., 1979; Liden & Mitchell, 1985), and feedback is consistent with past evaluations (Stone & Stone, 1984, 1985). The favorableness (or sign) of the feedback is also related to participants' receptivity of feedback. Specifically, positive feedback tends to be more readily accepted than negative feedback (Bannister, 1986; Diboye & dePointbriand, 1981; Fecteau, 1996; Fedor et al., 1989; Ilgen et al., 1979; Jacobs, Jacobs, Feldman, & Cavoar, 1973; Stone & Stone, 1985; Synder & Newburg, 1981). Finally, characteristics of the feedback recipient (e.g., locus of control, self-esteem, age) also appear to be related to reactions to feedback. For example, research suggests that individuals with high (versus low) self-esteem rely less on feedback from their job environment and more on their own self-

perceptions to guide their behavior (Ilgen et al., 1979; Stone et al., 1984; Sweeney & Wells, 1990). In terms of locus of control, the literature suggests that individuals with an internal locus of control will perceive feedback as more accurate when positive information is presented before negative information (Stone et al., 1984). Finally, there is some evidence to suggest that older, more experienced workers may be less accepting of feedback than younger workers (Ashford, 1986; Ilgen et al., 1981; McEvoy & Buller, 1987).

In order to better understand the effectiveness of developmental assessment centers, researchers and practitioners alike would benefit from identifying those characteristics that make feedback more acceptable to participants. When considering both the assessment center and performance appraisal literature, it becomes clear that there are a number of potential strategies for increasing the likelihood that participants will buy-into their assessment feedback. This study will attempt to extend both the assessment center and performance appraisal feedback literature by concurrently examining the relationship between source, message, recipient, and contextual characteristics. The data in this study will be archival reactions, performance, and personality data gathered from 107 government employees who participated in a week-long management development workshop. The source characteristic to be examined is perceived expertise. The message characteristic that will be examined is favorability (or sign) of the feedback. The recipient characteristics to be examined include (1) assessment center ratings of participants' judgment/decision making, analysis, and level of self-confidence, (2) participants' critical thinking/reasoning skills, (3) personality ratings of participants' tolerance toward others, flexibility, and realization of potential, and (4) participants' age. Two contextual variables will be examined, including participants' general affect toward the assessment center experience, and their perceptions regarding the job-relatedness of the assessment center exercises.

Determining the Relative Importance of Factors

Related to Feedback Acceptance (Accuracy)

Once there is a better understanding of those variables that affect acceptance of developmental assessment center feedback, the next fundamental issue to address is which of the various variables is (are) the most important determinant(s) of favorable reactions to feedback. Such information should have significant theoretical and applied implications for assessment center researchers and practitioners. However, research addressing this issue is noticeably limited. In their review of the performance appraisal feedback literature, Ilgen et al. (1979) suggest that source credibility may be the most important determinant of feedback acceptance. Others propose that level of self-esteem may be the most important determinant (Sweeney & Wells, 1990). Although a few assessment center researchers have concluded that source credibility/expertise (Fletcher, 1991a) or exercise realism (Goodge, 1995) may be the most important factors, most have not even addressed this issue. Instead, readers are often left to infer variables' importance from an examination of certain statistical measures (e.g., correlation or regression coefficients). Moreover, such interpretations are limited by the nature of the relationships between predictor variables and the statistical methodology used. For example, in the rare case where a given set of predictors is uncorrelated, relying on an examination of zero-order correlations of the variables with a criterion is meaningful for ranking variables in terms of their importance (Budescu, 1993). However, when predictors are interrelated, it becomes more difficult to make judgments about relative importance. In such cases researchers have relied on other approaches, such as multiple regression analysis, as a tool for determining the relative importance and rank order of a set of predictors in a given model. Unlike past research, the issue of relative importance or ranking will be explored using a more sophisticated statistical technique, dominance analysis (Budescu, 1993).

In summary, the present study will determine which variables are related to feedback acceptance. Based on past research, it is hypothesized that feedback acceptance (accuracy) will be dependent on a variety of feedback source, message, recipient, and contextual factors which are elaborated upon in subsequent chapters. This study will also reveal which of these variables are the most important determinants of feedback acceptance.

Together these findings should extend the current assessment center and performance appraisal literature and provide directions for future efforts to understanding participants' receptivity to developmental assessment center feedback. Undoubtedly, neither researchers nor practitioners cannot appreciate the full potential of assessment centers as management training and development tools until these issues are better understood. However, before addressing specific hypotheses, it is appropriate to step back and review both the assessment center and performance appraisal literature concerning reactions to feedback.

CHAPTER II

REVIEW OF THE LITERATURE

Review of the Assessment Center Literature

Overview of the Assessment Center Method

From their inception during World War II, assessment centers have been used in military, clinical, industrial, educational, and other settings to evaluate individuals' skills and abilities. In terms of industrial applications, as of 1987 it was estimated that more than 2000 organizations were using some type of assessment center methodology to enhance human resource management efforts (Gaugler, Rosenthal, Thornton, & Bentson, 1987). Organizations use assessment centers for a variety of purposes, including facilitating recruitment, selection, placement, training and development, performance appraisal, organizational development, succession planning, promotion and transfer, and restructuring/downsizing endeavors (Thornton, 1992; Thornton & Byham, 1982).

An assessment center is not a place, per se, but rather a standardized process in which individuals participate in a variety of exercises designed to resemble real-world job situations. While the specific features of an assessment center may vary from application to application, there are several key elements which are necessary for a process to be considered an assessment center. These include, but are not limited to, the use of multiple exercises, multiple dimensions, multiple trained observers, and a strategy for integrating information (Task Force on Assessment Center Guidelines, 1989).

Unlike traditional assessment measures, the assessment center method focuses on the demonstration and observation of actual behaviors. That is, assessment centers provide participants (typically referred to as "assesseees") with an opportunity to demonstrate various job-related skills across a variety of exercises (typically referred to as "simulations"). Common types of simulations include: (1) In-Basket Exercises (in

which a participant is asked to deal with the administrative tasks – memos, reports, etc. – associated with supervisory and managerial jobs); (2) One-on-One Interview Simulations (in which a participant is asked to deal with a problem subordinate, etc.); (3) Leaderless Group Discussions (in which a participant meets with coworkers in either a cooperative or competitive setting to resolve a particular problem); and (4) Analysis/Problem-Solving Exercises (in which a participant analyzes a particular problem and offer recommendations). Other types of exercises include Leader-Assigned Group Discussions, Scheduling Exercises, and Presentation Exercises (Moses & Byham, 1982; Thornton & Byham, 1982).

Across each of the simulations, multiple trained raters (typically referred to as "assessors") observe, document, classify, and rate behaviors associated with multiple skill dimensions. These behavioral dimensions reflect the competency areas needed for successful job performance. While the types of dimensions assessed vary from center to center, there are some common dimensions including: Oral Communication, Written Communication, Judgment, Analysis, Decisiveness, Stress Tolerance, Leadership, Initiative, and Planning and Organizing skills (Moses & Byham, 1982; Thornton & Byham, 1982).

Once participants have completed all of the simulations, judgments are clinically or mechanically (statistically) combined. In some cases a combination of both approaches is used (Thornton & Byham, 1982). In regards to the former, data is pooled during a assessor meeting (referred to as a "consensus discussion"). Some consider this strategy to be the most central aspect of assessment center technology since it is assumed that consensus discussion will minimize any individual rater bias/errors and may motivate greater conscientiousness among assessors (Byham, 1992, as cited in Howard, 1993; Thornton & Byham, 1982). Others advocate the latter strategy since research suggests it is equal to or superior to the clinical approach, and less time-

consuming (Borman, 1982; Feltham, 1988; Howard, 1974; Sackett & Wilson, 1982; Wollowick & McNamara, 1969). Regardless of the integration strategy, the objectives are the same – to derive final dimension, exercise, and/or overall performance ratings.

Evaluation of Assessment Centers

From a scientific perspective, research has shown that assessment centers are effective tools for predicting future overall job performance, management potential, performance on specific skill dimensions, performance in training, and career advancement. Validities range from $r = .36$ to $.53$, depending on the criteria used (Gaugler et al., 1987; Schmitt et al., 1984). Moreover, research has demonstrated that centers are equally valid for blacks and whites (Huck & Bray, 1976), and males and females (Moses & Boehm, 1975). On the other hand, there is mixed evidence concerning the fairness of assessment centers toward older participants (Burroughs, Rollins, & Hopkins, 1973; Moses & Byham, 1977; Thornton & Byham, 1982). Finally, the fact that assessment centers require candidates to perform the same kinds of tasks that are actually performed on the job explains why they are seen as possessing high "face" and "content validity" (Dodd, 1977; Thornton & Byham, 1982).

From a financial perspective, despite their relatively high overhead costs (expenses associated with program development and administration, c.f., Adler, 1987), assessment centers provide organizations with a good return on investment. Studies indicate that economic gains range from about \$2,500 per selectee per year to over \$20,000 per selectee per year (Burke & Frederick, 1986; Cascio & Ramos, 1986; Cascio & Silbey, 1979; Kudisch & Poole, 1993).

From a legal perspective, the assessment center approach is well-received and has garnered considerable support from the courts. Many organizations have successfully defended their management practices when the fairness of an well-designed and well-run assessment center was questioned (Burroughs & Cook, 1990; Mendenhall, 1989, as

cited in Thornton, 1992). Even more impressive is the fact that the Equal Employment Opportunity Commission (EEOC), the agency that enforces legislation regarding discriminatory practices in the workplace, has employed assessment centers as part of their employee selection and promotion processes (Thornton & Byham, 1982).

Participants' Reactions to Feedback

Overall the last two decades several attempts have been made to examine participants' reactions to assessment center feedback. Much of this research has been purely descriptive in nature, focusing on participant likes and dislikes. The most widely used method for capturing such reactions has been paper-and-pencil surveys distributed at or immediately after an assessment center. While reactions to feedback are sometimes mixed (Iles, Robertson, & Rout, 1989; Teel & DuBois, 1983), generally participants respond favorably (Dodd, 1977; Fleenor, 1988; Rotolo & Kudisch, 1996).

In an early review of the research on reactions to assessment centers, Dodd (1977) reports favorable attitudes toward assessment feedback across a variety of organizations (e.g., Michigan Bell, Public Service Commission of Canada, IBM; N's range from 36 to 700). In terms of perceived accuracy, 50%-83% of respondents believed the assessors had correctly identified their strengths and weaknesses, while 5%-30% considered the feedback to be inaccurate. In terms of the value of the feedback for personal development, Dodd (1977) reports that 29%-86% of respondents perceived the diagnostic information as helpful, while 17%-19% of participants considered the feedback to be of little value.

In a similar study using items adapted from Dodd (1977), Teel and DuBois (1983) investigated the attitudes of participants who had completed either a selection or development center ($N=37$). Their most significant findings were that high and low scorers differed significantly in their receptivity toward feedback. Specifically, 79% of the high scorers perceived the assessors' evaluations as accurate, 95% felt the feedback

was valuable in their personal development, and 95% believed the developmental recommendations they were given were worthwhile. Conversely, those who did less well reacted more negatively to their feedback. Twenty-eight percent perceived the feedback as accurate, 61% felt that the information would be valuable in their personal development, and 44% perceived the developmental recommendations as worthwhile.

Fleenor (1988) also used items from Dodd (1977) to gather reactions from 78 middle managers in state government who voluntarily participated in a 2-day management development program. The assessment center consisted of eight exercises, including a patterned interview, meeting exercise, policy analysis presentation exercise, policy implementation plan, written situational test, policy discussion exercise, performance counseling exercise, and an in-basket exercise. Assessors provided ratings on ten dimensions, including integrity, logical reasoning/problem detection, initiative/decisiveness, persuasiveness, time sensitivity/control, sensitivity, group leadership, organization/planning, written communication, and oral communication. Fleenor (1988) found that participants were generally favorable toward the assessment center and the feedback. For instance, many believed that the feedback was valuable for their personal development ($\bar{M} = 4.33$ on a 5-point scale), that the developmental recommendations were worthwhile ($\bar{M} = 4.28$), and that the feedback provided new insights into their managerial behavior ($\bar{M} = 4.10$).

In yet another study based on Dodd's (1977) work, Iles, Robertson, and Rout (1989) reported on participants' reactions to two development centres ($N = 18$ and 34 , respectively). Consistent with previous findings, participants were somewhat enthusiastic about the feedback and developmental recommendations they received. That is, 53%-65% of participants agreed that the assessors' observations were accurate, and 62%-76% agreed that the feedback was useful and worthwhile.

In a more recent study, Rotolo and Kudisch (1996) examined participants'

reactions (N ranges from 60 to 74) to a variety of popular assessment instruments, including a developmental assessment center. They found that participants generally perceived their feedback as accurate and helpful in devising their individual development plans. Specifically, 74% of participants viewed the assessors' observations as accurate, and only 5% considered the feedback inaccurate. Likewise, 75% of participants felt the information was valuable for development planning, while only 8% did not believe the data was useful. From a comparative standpoint, Rotolo and Kudisch (1996) found that respondents perceived the assessment center feedback to be as accurate as the feedback from several other devices (e.g., personality measures, 360-degree feedback measure), and more accurate than feedback from a cognitive ability measure. Of additional interest was the finding that assessment center feedback was seen as significantly more useful for creating personal development plans than information from all the other devices except the 360-degree feedback measure.

Factors Related to Acceptance of Feedback

While descriptive research examining overall reactions to assessment center feedback is certainly useful for understanding and enhancing assessment center methodology, such research tells us little about why participants react in a positive, negative, or neutral manner toward their feedback. When used for selection or promotion purposes, knowledge of the underlying factors that influence candidates' receptivity to assessment center feedback may be of some importance since reactions may affect applicants' attraction to and opinions of an organization, as well as their propensity to file legal complaints (c.f., Gilliland, 1993; Kudisch, Poole, Dobbins, & Ladd, 1994; Rynes, 1993; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993). However, in such administrative contexts, organizational success is ultimately contingent on the empirical accuracy (e.g., validity) of the process.

Conversely, from a developmental perspective, participants' perceptions

regarding assessment center feedback are equally important, if not more important than the empirical accuracy of the center. This assertion is based on the premise that the usefulness of developmental assessment centers is contingent on whether or not developmental feedback is accepted and acted upon (Boehm, 1985; Boehm & Hoyle, 1977; Engelbrecht & Fischer, 1995; Goodge, 1995; Jones & Whitmore, 1995; Thornton, 1992). This suggests that researchers move beyond merely looking at overall reactions to feedback to investigating those characteristics which lead to greater acceptance of feedback. By incorporating this information into the design of assessment centers, practitioners should be able to enhance participants' reactions to feedback, thus increasing the likelihood that participants will engage in self-development activities. Ideally, this should enhance individual effectiveness and the performance of an organization as a whole.

Despite the importance of this issue, and its timeliness given the increasing trend toward developmental assessment centers, there are few studies which have systematically examined factors related to feedback acceptance. In a study described earlier, Fleenor (1988) found no relationship between assessment center performance (as measured by mechanically derived overall assessment ratings) and feedback acceptance. In a discussion of his findings, the author proposed that both good and poor performers accepted feedback because (a) it was presented by a knowledgeable source, (b) it included performance-related information, and (c) the assessor who conducted the feedback session appeared interested in their development. However, no empirical data was provided to support these contentions.

Using a sample of primarily young females (N total = 68; mean age = 27 years; 67% female), Burd and Ryan (1993) examined whether reactions to feedback on three assessment center dimensions (judgment, organization and planning, and leadership) were influenced by feedback sign and perceived expertise of the source (assessors).

According to their findings, expertise was positively related to feedback favorability. Consistent with some of their hypotheses, they found that perceived accuracy of the feedback was positively related to feedback favorability for all the dimensions, and positively related to perceived expertise of the assessors for two of the dimensions (judgment and leadership). Based on work in the performance appraisal domain, Burd and Ryan (1993) also hypothesized that negative feedback would be only be accepted when presented by an expert source. However, regression analyses failed to support this interaction effect between these factors.

In a rather unique study, (Baisden & Roberson, 1993) attempted to extend the literature by investigating the relationship between a variety of individual characteristics and participants' receptivity to developmental assessment center feedback. Unlike past studies which have measured feedback acceptance directly by asking participants to respond to several survey items, participant receptivity was measured indirectly via observations made by assessors during the one-on-one feedback sessions. Specifically, using behaviorally-anchored rating scales, assessors made ratings on four receptivity dimensions (involvement in feedback session, seeks more specific information, acceptance of feedback, willingness to act on feedback), after which they were asked to provide a global rating of participants' receptivity to feedback. Data from the study were based on assessment center ratings, personality, and cognitive ability data collected from individuals ($N = 35$; mean age = 37 years; 54% male; 70% white) from various organizations (e.g., government, manufacturing, etc.) who attended a developmental assessment center. The assessment center itself consisted of eight exercises, including a background interview, in-basket, in-basket coaching simulation, promotion discussion, project presentation, project discussion, team presentation, and a role play simulation. Assessors made ratings on sixteen performance dimensions, including leadership, delegating and controlling, planning, organizing, handling and

coping with detail, human relations understanding and skill, initiative, achievement drive, work and managerial orientation, mental abilities, judgment and decision making, innovation and creativity, oral communication, written communication, effectiveness under stress, and personal adjustment. Numerous additional individual difference characteristics were measured using eight popular, off-the-shelf, standardized psychological instruments. Tests included the California Psychological Inventory (CPI), Myers-Briggs Type Indicator (MBTI), Wesman I: Verbal Reasoning, Employee Aptitude Survey (EAS) 1: Vocabulary, EAS 5: Space Visualization, EAS 6: Numerical Reasoning, EAS 7: Verbal Logic, and the Watson-Glaser Critical Thinking Appraisal. Using simple correlational analyses, Baisden and Roberson (1993) found that a number of variables were significantly related to perceived acceptance, with correlations ranging from .35 to .48. These included (a) personality characteristics such as participants' tolerance, work orientation, and realization of their potential, (b) assessment center dimension ratings of judgment and decision making, organizing, and personal adjustment skills, and (c) overall ratings for the promotion discussion exercise. They also found a strong positive relationship between perceived acceptance and overall assessment ratings of managerial proficiency ($r = .56$). Their findings also demonstrated that participants who were perceived to be highly involved in the feedback discussion and sought more specific feedback tended to be more creative, were more norm-favoring, had a better realization of their potential, were more perceptive and had stronger mental abilities, displayed better judgment, and were more proficient in a managerial role. Similarly, Baisden and Roberson (1993) found that participants who appeared more willing to act on their feedback tended to be more tolerant of others and more capable in a managerial capacity. Finally, the researchers found that a number of variables were positively related to global ratings of receptivity. These included tolerance, flexibility, realization of potential, verbal reasoning, critical thinking, judgment and decision making, and

overall assessment ratings. Correlations ranged from .37 to .58, with the highest correlation again emerging with overall ratings of managerial proficiency. Overall, the researchers concluded that the results provided initial support for the validity and utility of their receptivity measures. Their results further showed that good performers tended to be most agreeable toward their feedback.

A recent study by Jones and Whitmore (1995) also addressed the question of whether developmental assessment centers are effective interventions. Data from the study were gathered from individuals (N = 151) who participated in a ten-year follow-up evaluation (1981-1990) of assessment centers designed for early identification of management potential and development. The assessment centers consisted of eight exercises, including a background information questionnaire, standardized interview, subordinate role play, in-basket, written exercise, formal presentation, and two group problem-solving exercises. The assessor team, most of whom had previous experience, consisted of upper-level managers who had received two days of training. Assessors provided ratings on seven performance dimensions, including career motivation, oral communication, written communication, decision making and problem solving, planning and scheduling, working with others, and stress management. Summary evaluations of (a) participants' overall proficiency at the management level, and (b) potential for management effectiveness within 3-5 years were also made. Specifically, Jones and Whitmore (1995) examined the relationships between assessment center ratings, feedback acceptance, developmental activity (e.g., whether recommendations identified in feedback reports had been acted upon), and career outcomes (e.g., advancement). Results showed that feedback acceptance had moderate to high correlations with assessment center ratings (r 's ranged from .30 to .59), with the highest correlations emerging between acceptance and overall ratings of potential and proficiency. This is consistent with earlier work in this area which suggests that positive feedback is more

likely to be accepted (Baisden & Roberson, 1993; Burd & Ryan, 1993). However, contrary to popular beliefs, they found that feedback acceptance was not related to developmental activity or career advancement. Interestingly, follow-up regression analysis revealed that feedback acceptance had a very slight, yet significant negative relationship with division-level attainment. In short, people who got promoted tended to be less accepting of their assessment feedback. Regression results also indicated that assessment center ratings of career motivation were the most predictive of division-level attainment.

In another recent study conducted in the United Kingdom (UK), Goodge (1995) examined the relationship between several design variables and perceived accuracy of developmental assessment center feedback. Design variables included characteristics of exercises (e.g., perceived job-relatedness, difficulty), feedback (e.g., clarity, supporting evidence/examples), assessors (perceived care and concern shown by coaches), and administrative components of the centres (e.g., efficient time-tabling, "slickness" of materials). Regression analysis of reaction data collected from participants ($N = 284$) who attended a variety of developmental assessment centres run by large UK organizations revealed that participants perceived feedback as accurate when the exercises were seen as realistic, when the feedback was clear, and when the feedback contained strong supporting evidence and examples. The latter finding is consistent with earlier conclusions set forth by Fleenor (1988). However, unlike Fleenor (1988), Goodge (1995) found no support for the contention that feedback acceptance is influenced by the care or interest shown by assessors during feedback sessions. In terms of participants acting upon their feedback, results from follow-up surveys showed that perceived accuracy of feedback was positively related to self-reports of developmental progress after six months (e.g., reports of quality of follow-up training course plans, plans for self-managed learning, improved job performance). Overall, a caveat seems

warranted. While this study highlights some variables related to feedback acceptance, Goodge (1995) provides readers with insufficient data to evaluate the soundness and rigor of his research design. Hence, the findings should be viewed cautiously.

Limitations of Past Assessment Center Research

It is clear that studies to date have contributed to our understanding of what factors influence participants' acceptance of developmental assessment center feedback. The findings also provide practitioners with some initial information for maximizing the effectiveness of developmental applications. However, despite their usefulness, there are several limitations associated with these studies. First and foremost, few of the study findings have been replicated in the assessment center literature. This implies that both researchers and practitioners view these findings cautiously. Second, the author was unable to locate any studies which simultaneously examined all three major factors proposed by Ilgen et al. (1979). At best, two factors (e.g., source and message characteristics) have been investigated (Burd & Ryan, 1993). Third, with the exception of two studies (Jones & Whitmore, 1995; Baisden & Roberson, 1993), there have been few attempts to understand the various individual characteristics of participants which influence their receptivity to developmental assessment center feedback. For example, what skills, preferences, and/or styles are associated with persons who are more accepting of feedback? Fourth, a few of the studies suffer from relatively small sample sizes (Baisden & Roberson, 1993; Burd & Ryan, 1993). As a result, they may not have had the power to detect effect sizes even if they had truly existed. Moreover, range restriction among predictors in the former study may have also precluded more effects from being detected. Fifth, one of the most recent studies was retrospective in nature, allowing a significant time lapse (as long as nine years in some cases) between the actual administration of the assessment center and the dissemination of a follow-up reaction survey (Jones & Whitmore, 1995). Sixth, one of the studies relied on a loosely defined,

multidimensional measure of feedback acceptance. Unlike most studies which have used perceived accuracy scales to assess acceptance, Fleenor (1988) used a 12-item index which measured feedback attributes such as perceived accuracy, clarity, and value for personal development. The index also included items which measured the extent to which the feedback provided new insights into managerial behavior and participants' intent to use feedback. Seventh, as opposed to employing regression analyses, many of the studies relied on simple correlational analyses to examine the influence of the various factors/predictors. Finally, results from at least one of the studies (Goodge, 1995) may have been heavily biased by method variance (c.f., Campbell & Fiske, 1959).

By stepping back from the assessment center research and examining related research in the performance appraisal domain, some of the above limitations may be addressed. For example, consistent findings across domains would provide further support for generalizing the assessment center results. Moreover, since researchers in the performance appraisal field began examining factors related to feedback acceptance nearly a decade before their counterparts in the assessment center field, a review of the performance appraisal literature may also reveal other variables related to feedback acceptance that have not yet been examined in assessment center studies.

Review of the Performance Appraisal Feedback Literature

A large body of literature has examined recipient reactions to feedback (e.g., Ilgen et al. 1979; Taylor et al., 1984). One of the most notable attempts to advance our understanding of this phenomenon was offered by Ilgen et al. (1979). As part of their comprehensive review of feedback research, they proposed a process model of the effects of feedback on recipients, as depicted in Figure 1. Rather than considering the model in its entirety, the following review will be limited to a discussion of that part of the model that is relevant to the research study at hand.

Ilgen et al. (1979) define acceptance as a "recipient's belief that the feedback is an

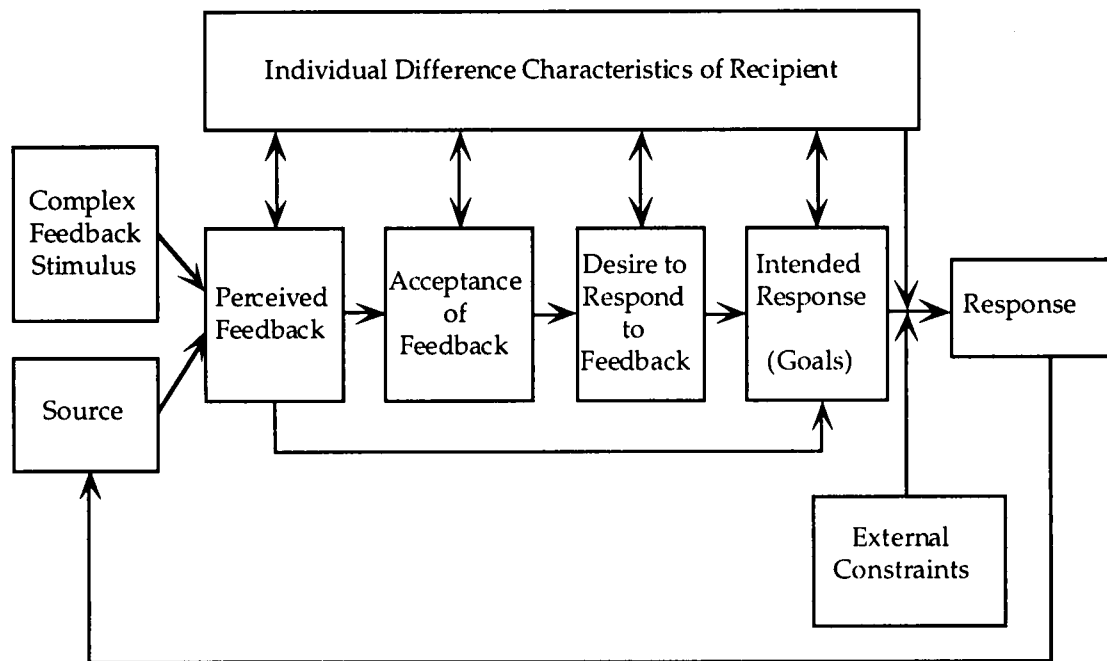


Figure 1. Ilgen, Fisher, & Taylor's (1979) Process Model of the Effects of Feedback on Recipients

accurate portrayal of his or her performance" (p. 356). According to their model, whether or not a person accepts his/her feedback will be a function of several key factors, including characteristics of the source, message, and recipient. Some researchers have also proposed that contextual factors play a role in individuals' reactions to feedback (DeGregorio & Fisher, 1988). Examples of studies which have examined these issues are addressed below.

Feedback Source Characteristics

Ilgen et al. (1979) hypothesized that the most important source characteristic affecting feedback acceptance is a source's credibility. Consistent with research from other disciplines (c.f., Brownell, 1982; Hovland, Janis, & Kelly, 1953; Hovland & Weiss, 1952; Kenton, 1989; Kudisch, 1989; McCroskey, 1966; McGinnis & Ward, 1980; Munter, 1986), Ilgen et al. (1979) define credibility as the degree to which a feedback source is perceived as an expert, trustworthy, and reliable.

Expertise. Ilgen et al. (1979) posit that feedback from high expertise sources will be viewed as having more credibility than feedback from low expertise sources, and consequently, will be viewed as more acceptable by recipients. A couple of studies have investigated source expertise as a determinant of feedback acceptance. In an early study comparing different sources of feedback, Greller and Herold (1975) found that people relied most on feedback from sources psychologically closer (e.g., the task at hand, their own feelings and ideas), where credibility should be high, than on more psychologically distant sources (e.g., the formal organization, immediate supervisor, peers). Likewise, Greller (1980) reported that subordinates placed more value and assigned greater credibility to feedback sources that were closer to them, such as the task, self-perceptions, and coworkers. In their investigation of the effects of source status (perceived expertise of a diagnostician) and favorability on acceptance of personality interpretations, Halperin, et al. (1976) demonstrated partial support for

Ilgen et al.'s (1979) premise. Specifically, they found that negative feedback was more readily accepted when provided by an expert source. However, status had no effect on acceptance of positive feedback. On the other hand, Stone, Gueutal, and McIntosh (1984) found that source expertise influenced the acceptance of both positive and negative feedback. Consistent with Ilgen et al.'s (1979) contentions, they found that feedback was perceived as more accurate when raters had high levels of expertise. They also found that rater expertise interacted with the way feedback was sequenced. Specifically, feedback delivered in a positive-sequence was perceived as more accurate than feedback given in a negative-positive sequence when raters were seen as having high levels of expertise. Further support for Ilgen et al.'s (1979) contention is provided by Bannister (1986). In an experiment manipulating characteristics of both source credibility and feedback message, he found that source credibility had a significant impact on college students' reactions to feedback. According to the results, subjects receiving feedback from a credible (i.e., more knowledgeable) source (a) perceived their feedback as more accurate, (b) viewed the source as more perceptive, and (c) were more satisfied with the feedback. In another recent lab study examining the effects of source credibility and performance rating discrepancy on recipients' reactions to multisource feedback, Albright & Levy (1995) found that feedback from experts was evaluated as more favorable (e.g., more accurate and useful) than feedback from peers. However, their results also revealed a significant three-way interaction between source credibility, performance rating discrepancy, and the source of that discrepancy. Specifically, when an expert provided individuals with feedback that was worse than expected (negative discrepancy), the expert's feedback was no longer rated more favorably than feedback from peers. Similarly, when peers provided individuals with feedback that was better than expected (positive discrepancy), the peer feedback was no longer rated significantly less favorably than the expert feedback. Unlike the previous studies,

Orpen and King (1989) found that subordinates' reactions to performance feedback from supervisors were relatively unaffected by their perceptions of supervisor credibility or expertise. Nevertheless, when considered together, the research findings suggest that expertise has some, albeit varying, influence on recipients' beliefs about the accuracy of feedback.

Trustworthiness. Ilgen et al. (1979) posit that feedback from trustworthy sources will be perceived as more accurate than feedback from untrustworthy individuals. For example, Fedor et al. (1989) conducted an experiment in which college students, playing the role of subordinates, responded to written performance feedback from their supervisors. Feedback was manipulated along several dimensions, including supervisory intentions (constructive vs. mixed vs. nonconstructive) for providing feedback. They found that subordinates reacted more favorably to feedback when supervisors' intentions were seen as constructive (i.e., the motive behind providing feedback was to help subordinates achieve goals by providing them with quality information and personal support). Results from a recent field study investigating reactions to subordinate appraisal feedback provide additional support for Ilgen et al. (1979). Using data from manager who participated in a 360-degree feedback process, Fecteau (1996) found that managers' acceptance of feedback was positively correlated with their perceptions of raters' credibility (where credibility was defined as a function of raters' fairness, honesty, and ability).

Another source characteristic that Ilgen et al. (1979) hypothesized to influence acceptance is the power of the feedback source (e.g., the source's control over valued outcomes). They suggest that feedback from powerful sources is more readily accepted than feedback from less powerful sources. For example, Synder and Newburg (1981) found that feedback from a group leader (superior) was seen as more accurate and acceptable than feedback from a fellow group member (peer).

Feedback Message Characteristics

Characteristics of the message (e.g., the feedback itself) may also play an important role in acceptance of feedback. Ilgen et al. (1979) proposed that the perceived usefulness of the feedback will be affected by three factors: the favorableness (or sign) of the feedback, the specificity of the feedback, and the consistency of the feedback.

Favorability. A substantial amount of research has been directed toward the sign of feedback, or its favorability. Ilgen et al. (1979) contend that this is the most important message characteristic. Specifically, individuals who receive positive feedback are more likely to perceive their feedback as more accurate or acceptable than individuals who receive negative feedback. Both laboratory (Bannister, 1986; Fedor et al., 1989; Jacobs et al., 1973; Stone & Stone, 1984, 1985; Synder & Newburg, 1981), and field studies (Dipboye & dePontbriand 1981; Facticeau, 1996, Waldersee & Luthans, 1994) provide consistent support for this notion. There is also considerable research which suggests this trend is evident in the personality literature (c.f., Halperin et al., 1976; Mosher, 1965).

Consistency. According to Ilgen et al. (1979), the extent to which the feedback from a particular source (or set of raters) is consistently positive or consistency negative also affects feedback acceptance. For example, Stone and Stone (1985) conducted an experiment in which college students received feedback from two raters on their performance in an in-basket exercise. Feedback was varied along two dimensions (consistency and favorability). They found that consistent feedback across sources was seen as being more accurate than inconsistent feedback. In a related experiment, Stone and Stone (1984) found that feedback from two feedback sources was not perceived as more accurate than repeated feedback by one source. Taken together, the findings suggest that message consistency plays an important role in participants' perceived

accuracy of feedback.

Specificity. Ilgen et al. (1979) also posit that the inclusion of supporting evidence (e.g., specific examples of behavior) should make feedback more acceptable to recipients. For example, in their lab study of individuals' reactions to feedback, Liden and Mitchell (1985) found that specific feedback was seen as more valuable than non-specific feedback. On the other hand, findings from the personality literature suggest that non-specific feedback in the form of "glittering generalities that apply to anyone" may also be seen as rather accurate (c.f., Stagner, 1967).

Feedback Recipient Characteristics

In addition to source and message characteristics, Ilgen et al. (1979) propose that certain characteristics of the recipient may affect the likelihood that feedback will be accepted. A number of individual difference factors have been considered, including self-esteem, locus of control, and age or factors related to age (e.g., work experience).

Self-Esteem. In their investigation of the effects of individual difference variables, Stone et al. (1984) found that high self-esteem individuals perceived feedback to be more accurate. The authors also found that self-esteem moderated the relationship between feedback sequence and perceived feedback accuracy. For low-esteem individuals, the sequence in which feedback was presented had no effect on individuals' perceptions regarding the accuracy of their feedback. Conversely, individuals with high self-esteem perceived feedback as more accurate when it was presented in a positive-negative feedback sequence (as opposed to a negative-positive sequence). Sweeney and Wells (1990) lend some additional support for Stone et al.'s (1984) findings that people with high self-esteem may be more likely to reject or ignore negative performance information. They designed an experiment to compare the effects of self-enhancement theory and consistency theory. The former predicts that low self-esteem individuals have a strong need to think and feel better of themselves, and therefore will be more

accepting of positive, self-enhancing feedback than persons with high self-esteem. In contrast, the latter predicts that people are receptive to evaluations that are consistent with self-perceptions. Therefore, low self-esteem individuals should reject success and be more accepting of negative feedback than high self-esteem individuals. The authors found that cognitive reactions to feedback supported consistency theory, while affective reactions supported self-enhancement theory. Specifically, high self-esteem subjects were more cognitively accepting of success and rejecting failure than low self-esteem subjects. Consistent with self-enhancement theory, subjects with low self-esteem were more emotionally upset by failure and more pleased by success than subjects with high self-esteem.

Locus of Control. In their review, Ilgen et al. (1979) note that individuals with an internal locus of control tend to respond more to feedback from the task itself, while individuals with an external locus of control respond more strongly to feedback from others. Similar to their findings regarding self-esteem, Stone et al. (1984) found that locus of control also moderated the relationship between feedback sequence and perceived feedback accuracy. Their findings suggest that for individuals with an external locus of control, the order in which feedback was presented had no influence on perceived feedback accuracy. On the other hand, individuals with a internal locus of control perceived feedback as more accurate when it was presented in a positive-negative feedback sequence.

Age and Related Factors. Age may also be related to feedback acceptance. According to Ilgen et al. (1979), older individuals may react less favorably to feedback than younger individuals. They contend that older, more experienced individuals will rely more on their own knowledge and past experiences for feedback. As a result, they would be less accepting of feedback from others. To date the research evidence is mixed. Consistent with Ilgen et al.'s (1979) proposition, Ashford (1986) found that

organizational tenure was significantly and negatively related to the perceived frequency of feedback-seeking. Ashford's (1986) findings suggest that while feedback may be useful when adapting to a new job environment, as organizational tenure increases, individuals may become less open and accepting to feedback. In a somewhat related field study investigating user acceptance of peer appraisal, McEvoy and Buller (1987) reported that more experienced employees were less favorable toward peer appraisals than younger employees. On the other hand, Ilgen et al. (1981) found positive but nonsignificant correlations of age and organizational tenure with attitudes regarding performance appraisal interviews. Unlike previous research, results from an assessment study by Fletcher (1991b) suggest that older workers may actually seek more feedback counseling than younger workers. The author contends that it becomes increasingly difficult to get feedback as one moves up the corporate ladder. Hence, older, more senior-level managers may actually place more value on opportunities for feedback. Overall, despite the limited amount of research in this area, the available data suggest that researchers may want to consider age or age-related factors (e.g., tenure, seniority) when examining determinants of feedback acceptance.

Contextual Factors Related to Feedback Acceptance

Recent research also demonstrates that contextual factors, such as the way in which feedback is delivered, may also affect an individual's willingness to accept feedback. For example, DeGregorio and Fisher (1988) conducted an experiment where college students received one-on-one feedback from assessors on their performance in an in-basket exercise. The extent to which subjects were allowed to participate in the feedback session was varied (e.g., top-down feedback versus three types of participative conditions). Their results showed that subjects who participated in joint feedback sessions (where assessors encouraged participation by comparing and resolving discrepancies between self and assessor ratings) perceived their feedback as

more accurate than those in traditional top-down feedback sessions (where subjects were strongly discouraged from participating in the feedback session and were simply told how well or poorly they performed).

Limitations of Past Research

There is no doubt that work in the performance appraisal domain examining individuals' reactions to feedback is far richer than related assessment center research in terms of the number of studies conducted, the variety of issues examined, and the statistical analyses employed. As a result, performance appraisal research provides us with a better understanding of those variables related to acceptance and perceived accuracy feedback. On the other hand, this body of research does have some shortcomings which deserve mention. The biggest drawback appears to be the fact that, unlike the assessment center research, most of the studies exploring feedback acceptance have been conducted in laboratory settings. While such designs offer researchers far more control than would be available in field settings, it does limit the external validity (e.g., generalizability) of the study findings. While some aspects of an organization can be recreated or manipulated in a lab, there are other more subtle, contextual factors which cannot (e.g., recipient motivations regarding the instrumentality of feedback for achieving various career or employment outcomes). In short, when one moves to an actual job setting, the complexity of the feedback environment increases dramatically (Herold & Parsons, 1985). Second, similar to the assessment center literature, many of the studies only address a limited number of variables related to feedback acceptance. More research is needed which simultaneously examines all three major attributes of feedback proposed by Ilgen et al. (1979) – source, message, and recipient characteristics. Thirdly, while many studies have examined feedback source and message characteristics, few studies have systematically examined individual difference and contextual factors.

Summary of Research Hypotheses

Based on the above review of both the assessment center and performance appraisal literature, several hypotheses are proposed in regards factors related to participants' acceptance of their developmental assessment center feedback. A conceptual framework summarizing these relationships is presented in Figure 2. A discussion of the rationale for each is presented in the subsequent paragraphs.

Feedback Source

First, in terms of attributes of the feedback source, research from both domains suggests that individuals are more willing to accept feedback when it is presented by an expert source (Albright & Levy, 1995; Burd & Ryan, 1993; Fleenor, 1988; Halperin et al., 1976; Ilgen et al., 1979; Stone et al. 1984). Thus, the following hypothesis is offered:

Hypothesis 1: Participants' acceptance of developmental assessment center feedback will be positively correlated with perceptions of assessors' expertise level.

Feedback Message

Second, in terms of attributes of the feedback message, there is considerable research across both domains which demonstrates that individuals are more willing to accept feedback when the feedback sign is positive or favorable (Baisden & Roberson, 1993; Bannister, 1986; Burd & Ryan, 1993; Dipboye & dePontbriand 1981; Facteau, 1996; Fedor et al., 1989; Halperin et al., 1976; Jacobs et al., 1973; Jones & Whitmore, 1995; Mosher, 1965; Stone & Stone, 1985; Synder & Newburg, 1981). Therefore, the following hypothesis is proposed:

Hypothesis 2: Participants' acceptance of developmental assessment center feedback will be positively correlated with the favorability of the feedback.

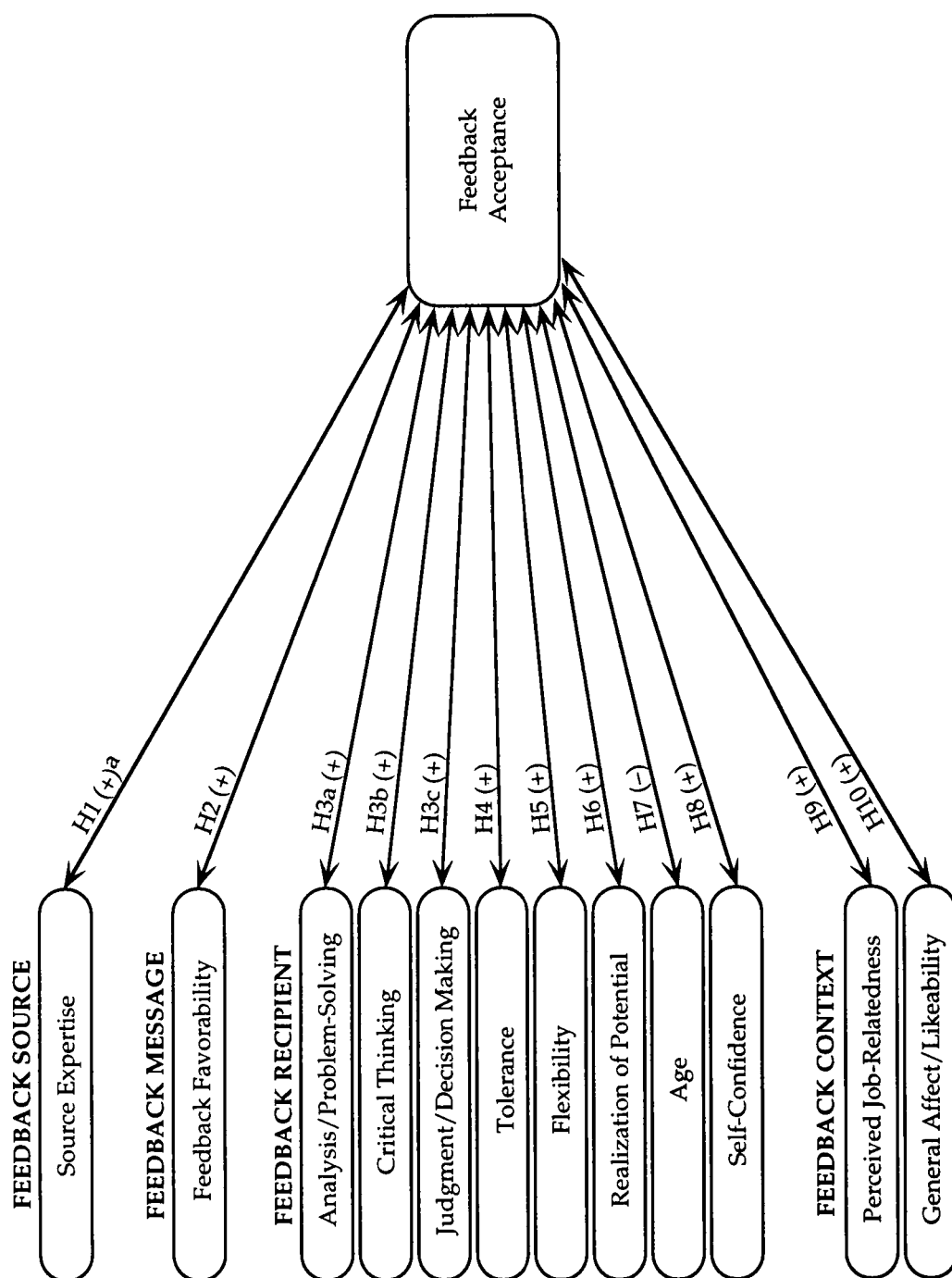


Figure 2. Conceptual Framework Summarizing Study Hypotheses. ^aH1 - H10 refer to the 10 hypotheses tested. The "+" and "-" signs in parentheses indicate the direction of the proposed relationship.

Feedback Recipient

Third, in terms of attributes of the feedback recipient, past research suggests that a variety of individual difference factors may be related to feedback acceptance. There is some evidence, albeit limited, in the assessment center literature which has shown that participants who possess better judgment/decision making, reasoning, and problem solving skills are more accepting of feedback (Baisden & Roberson, 1993; Whitmore & Jones, 1995). An assessment study by Fletcher (1991b) investigating managers' feedback seeking behaviors provides further support for these contentions. The results indicated that managers who showed up for optional feedback counseling sessions tended to be higher on logical thinking as measured by the Watson-Glaser Critical Thinking Appraisal (Watson & Glaser, 1980) than those who did not show up for feedback; however, the finding was only marginally significant ($t=1.77$, $p<.08$). On the other hand, it is quite likely that his small sample size ($N=50$) prevented him from detecting a significant effect.

Overall, one might wonder why such recipient characteristics are related to feedback acceptance. Perhaps the reason for these findings is that such individuals recognize the logic, comprehensiveness, objectivity, and validity of the assessment process, and therefore appreciate the value and usefulness of the feedback than those with weaker judgment skills. Further, given that individuals with strong judgment skills tend to exhibit good forethought, it may be that they simply have a better appreciation of the long-term implications of buying into and acting upon their feedback (e.g., how doing so could ultimately advance their careers). Consistent with the notion that the "rich get richer," the following hypotheses are proposed:

- | | |
|----------------|--|
| Hypothesis 3a: | Participants' acceptance of developmental assessment center feedback will be positively correlated with their analysis/problem-solving skills. |
|----------------|--|

Hypothesis 3b: Participants' acceptance of developmental assessment center feedback will be positively correlated with their critical thinking skills.

Hypothesis 3c: Participants' acceptance of developmental assessment center feedback will be positively correlated with their judgment and decision making skills.

There is also some evidence in the assessment center literature that individuals who are more tolerant of and better able to work with others tend to be more accepting of feedback (Baisden & Roberson, 1993; Whitmore & Jones, 1995). Again, Fletcher's (1991b) study provides further support for these contentions. Specifically, he found that feedback takers were significantly more tolerant, patient, and had better personal relations with others than those who did not attend the sessions. Given these findings, the following hypothesis is offered:

Hypothesis 4: Participants' acceptance of developmental assessment center feedback will be positively correlated with their tolerance of others' beliefs and values.

Data from one of the studies provides some initial evidence that the more flexible an individual is, the more likely he/she is to be open and accepting of feedback (Baisden & Roberson, 1993). This is consistent with personality research (Gough, 1987; McAllister, 1988) which contends that flexible individuals are adaptable, being open to new ideas and change. In this context, new ideas are analogous to the developmental insights and recommendations gained by participating in the assessment center. Based on this, it is hypothesized that:

Hypothesis 5: Participants' acceptance of developmental assessment center feedback will be positively correlated with their flexibility level.

Baisden & Roberson (1993) also noted that participants' level of self-realization

was significantly related to perceived feedback acceptance. It makes sense that feedback may be more useful to such individuals since high scores on this scale are associated with individuals who are insightful, mature, logical, and able to cope with life stresses (Gough, 1987; McAllister, 1988). Given this profile, one might expect such individuals to appreciate the value of developmental feedback for further enhancing their potential capabilities more than individuals who score low on this dimension. It may also be that individuals with higher self-realization would feel less threatened by negative feedback and would instead view it as an opportunity for further growth and improvement. Thus, it is hypothesized that:

Hypothesis 6: Participants' acceptance of developmental assessment center feedback will be positively correlated with their realization of potential.

Another recipient characteristic of interest is participant's age. There is some evidence in the performance appraisal research that older, more tenured workers may be less receptive to feedback than their younger counterparts (Ashford, 1986; Ilgen et al., 1979; McEvoy and Buller, 1987). By seeking feedback, Ashford (1986) contends that longer-term employees might risk tarnishing their image of being perceived as knowledgeable, confident veterans who need not rely on others for guidance. Hence, because of the high social costs, more tenured individuals may seek feedback less often. Despite some evidence to the contrary (Fletcher, 1991b), the following hypothesis predicts:

Hypothesis 7: Participants' acceptance of developmental assessment center feedback will be negatively correlated with their age.

The last individual difference factor to be examined in this study is individuals' level of self-confidence. Individuals with high self-confidence are believed to be secure, open to criticism, and able to take full responsibility for both success and failures. They

may therefore view either positive or negative feedback as useful in learning about their skills and abilities (Ashford, 1986). Less confident individuals, however, are more likely to become defensive and uncomfortable when presented with criticism (Boyatzis, 1982). Those lacking confidence might also view negative feedback as threatening to their self-esteem (Singer, 1966). Hence, it would reasonably follow that confident individuals would be more open and accepting of feedback than less confident individuals. Consistent with this argument, Ashford (1986) found that self-confidence was significantly and positively related to how often individuals monitored their environments for feedback. Relatedly, in her research regarding organizational socialization, Morrison (1993) found that unlike their low self-confidence counterparts, newcomers with high self-confidence were more likely to ask their supervisors, rather than their peers, for feedback. Therefore, the present study tests the hypothesis that:

Hypothesis 8: Participants' acceptance of developmental assessment center feedback will be positively correlated with their self-confidence levels.

Feedback Context

The final two issues to be examined in the present study deal with contextual factors that may be related to feedback acceptance. In regards to the first variable, the author was only able to locate one study which examined this relationship (Goodge, 1995). Initial findings indicate that participants are more likely to perceive feedback as accurate when they perceive the exercises as realistic portrayals of activities/tasks conducted in actual work settings. While intuitively appealing, this proposition is also consistent with previous assertions regarding the behavioral fidelity of centers (c.f., Dodd, 1977) and descriptive research which indicates that the perceived usefulness and accuracy of developmental assessment techniques are positively related to perceptions of face and predictive validity (Rotolo & Kudisch, 1996). Based on all this, the

following hypothesis is presented:

Hypothesis 9: Participants' acceptance of developmental assessment center feedback will be positively correlated with perceived job-relatedness of the assessment center.

The other contextual variable of interest is participants' general affect or liking toward the assessment center process. The literature regarding overall reactions to assessment centers reviewed earlier suggests that regardless of scores, participants react favorably to their assessment experiences. In fact, in most studies the majority of participants state that they would (a) attend another center if given the opportunity, and (b) recommend a friend to attend (c.f., Dodd, 1977; Teel & DuBois, 1983). Further, it does not seem plausible that participants (with the exception of masochists) would recommend colleagues to attend similar programs if they themselves had perceived their assessment feedback to be of little to no value. Hence, the final hypothesis predicts that:

Hypothesis 10: Participants' acceptance of developmental assessment center feedback will be positively correlated with general affect toward the assessment center.

Relative Importance of Factors Related to Feedback Acceptance

As stated earlier, in addition to investigating the bivariate relationships between those factors listed above and feedback acceptance, this study will attempt to address the issue of which of these factors is (are) the most important determinant(s) of feedback acceptance. Despite some prior contentions (c.f., Fletcher, 1991; Goodge, 1995; Ilgen et al., 1979), the overall paucity of research in this area precludes the author from making any reasonable a priori hypotheses.

CHAPTER III

METHODOLOGY

Overview of the Study

Consistent with much of the past assessment center research, the data in this study will be archival in nature. Specifically, the data will be based on reaction, performance, and personality data collected from participants who attended week-long, management developmental workshops between April and December of 1994.

Sample

Participants

The data were obtained from 107 government employees from various federal agencies who voluntarily attended a week-long Management Assessment Program (MAP) sponsored by the Office of Personnel Management (OPM). A power analysis conducted in accordance with Cohen and Cohen (1983) indicated that this sample size would provide adequate statistical power (see Appendix A). Specifically, using a .05 significance criterion, there would be between a 75 – 80% probability of detecting a medium effect size ($f^2 = .15$).

The MAP program was offered four times over a one year period (N participants during each workshop were 21, 33, 35, 18, respectively). The majority of participants were white (79.4%), middle-aged (M age = 45.0; SD = 7.2), males (64.5%). Most had either received a bachelors (37.7%) or a master's degree (38.7%), and their mean management experience was 9.2 years (SD = 7.5).

Procedure

Description of the MAP

The purpose of the program was to diagnose participants' training needs and offer recommendations to facilitate personal development and career planning. The

program consisted of three primary components: a self-assessment module, a professional assessment module (an assessment center), and a developmental planning module. At the conclusion of the program, participants were asked to fill out a reaction survey developed by the company who administered the assessment center. Each of these program characteristics are described below.

Self-Assessment Module. The self-assessment module was conducted prior to and at the outset of the program. Before actually attending the workshop, participants were asked to complete a couple of multisource feedback instruments, including the SkillScope (Kaplan, 1993) and The Credibility Index (Wilson Learning Corporation, 1990). These instruments were also disseminated to participants' superiors, peers, and subordinates to complete. At the beginning of the workshop, participants received feedback on these instruments. They also completed and received feedback on a variety of popular, off-the-shelf paper and pencil instruments. These included personality measures such as the Myers-Briggs Type Indicator (Myers & McCaulley, 1985) and the Social Styles Inventory (Riggio, Lippa, & Salinas, 1990; Riggio & Sotoodeh, 1989), among others. Sessions that addressed these instruments were usually conducted by trained/certified facilitators from each of the respective vendor organizations.

Assessment Center. In the second phase of the program, individuals participated in a one and one-half day assessment center conducted by a team of professional psychologists and doctoral-level Industrial-Organizational Psychology students. All assessors had been trained in accordance with the Guidelines and Ethical Considerations for Assessment Center Operations (Task Force on Assessment Center Guidelines, 1989). Training content included: understanding dimensions; observing, documenting, and categorizing behavior; establishing frames of reference; making individual ratings; and pooling ratings through consensus. In order to maximize the effects of training, an active learning climate was established (e.g., practice, feedback,

etc.). Both the training and the actual center were administered by senior-level assessors who had considerable professional experience conducting assessment centers in both public- and private-sector organizations, and who held advanced degrees in Industrial-Organizational Psychology.

The assessment center was designed to tap a variety of behavioral skill dimensions that were identified as requisite for success according to OPM's competency model for managers and leaders. Because the number of skill dimensions varied slightly across centers, only the core dimensions used across all centers are noted. These included oral communication, sensitivity, customer service orientation, decisiveness, leadership, delegation, initiative, confrontation, planning and organizing, stress tolerance, analysis, judgment, and self-confidence. However, for the purposes of this study, only the latter three dimensions will be examined.

Several measures were used to tap the dimensions of interest, including a structured background interview, several commonly used exercise simulations (c.f., Thornton & Byham, 1982), and two standardized paper and pencil psychological instruments. While the number of simulations varied slightly among centers, a core of exercises was generally used, including a One-On-One Employee Discussion (role-play), a Leaderless Group Discussion (LGD; cooperative), and an In-Basket. Other exercises included a Case Analysis, a competitive LGD, and a second Employee Discussion. The two psychological instruments that were administered as part of the assessment center included the California Psychological Inventory (CPI; Gough, 1987) and the Watson-Glaser Critical Thinking Appraisal (Watson & Glaser, 1980). These instruments were used to gain a better understanding of the behaviors exhibited in the assessment center exercises.

In order to enhance the quality of assessor ratings, increase efficiency, reduce administrative costs, and enhance assessment feedback, participants' performance in

the interpersonal exercises was videotaped. Whenever possible, at least two assessors made independent ratings for each participant on the exercises. After all independent ratings were completed, the assessor team gathered for a consensus discussion. During this meeting, the assessors resolved discrepancies within and across exercises, and reached agreement on overall dimension ratings for each participant.

At the conclusion of the assessment center participants were given performance feedback in a variety of ways. First, whenever possible, participants were encouraged to watch their group and individual videos. This approach was utilized in order to give participants another opportunity for self-assessment. Second, participants engaged in one-on-one feedback sessions with senior-level assessors. During the session, participants were given verbal dimension feedback, as well as opportunities to ask questions/seek clarification on issues. They were also provided with some advice (e.g., relevant books, readings, training courses) that would be useful in addressing respective skill deficiencies. Finally, participants were told that they would eventually receive a more comprehensive, written feedback report in the mail. Participants were also ensured that their feedback was confidential and would therefore not be shared with any other individuals (e.g., their supervisors).

Individual Development Planning. The final program module assisted participants in the design of individual development plans and career goals. This module provided participants with suggestions on how to set challenging, yet achievable goals, and how to identify support systems (e.g., assistance from supervisors and agency HR departments, "buddy systems," external training opportunities, etc.) and barriers (e.g., funding, staffing, equipment) that could impact goal accomplishment. Finally, participants were encouraged to draft an initial individual development plan. Throughout this module, participants were given the opportunity to review a variety of resource manuals and speak with HR professionals and key government speakers

regarding: (1) those skills and abilities necessary for success in the federal government, and (2) resources available for assisting participants with career planning (e.g., specific training courses, on-the-job activities, readings, etc.).

Reaction Survey. At the conclusion of the week-long management development program, participants were asked to voluntarily complete a reaction survey. They were assured that the survey information would only be used for research purposes and to enhance the design and implementation of future MAPs. They were also assured of the confidentiality of their responses. Specifically, they were told that only the assessment center consultants would have access to the individual-level information, and that the consultants would only provide group-level data to OPM. A total of 116 surveys were given to participants, and 107 surveys were returned, yielding a 92% response rate.

The survey instrument was composed of five major sections. The first section consisted of demographic and background information (e.g., sex, age, race, education level, management experience). Section two assessed participant reactions to the overall MAP, section three focused specifically on their reactions to the assessment center process, and section four asked participants to compare and evaluate a variety of assessment tools used throughout the program on a series of scales. Finally, section five solicited open-ended comments from respondents. Only those survey measures used to test the various hypotheses of this study (source credibility/expertise, general affect/likeability, perceived job-relatedness, perceived feedback accuracy) will be discussed below .

Measures

All survey items were rated on a 5-point Likert-type scale (1 = "Strongly Disagree" to 5 = "Strongly Agree"). The specific survey items used to measure the aforementioned constructs are presented in Appendix B. Similarly, all assessment center dimensions were rated using a 5-point Likert-type scale (1 = "Unsatisfactory" to 5

= "Outstanding").

Predictors

Twelve predictors relating to feedback acceptance were assessed in this study. Of these, one assessed a source characteristic (source credibility/expertise), one assessed a message characteristic (message favorability/feedback sign), eight assessed recipient characteristics (judgment/decision making, analysis, critical thinking, self-confidence, tolerance, flexibility, realization of potential, and age), and two assessed contextual variables (general affect/likeability towards the assessment center, perceived job-relatedness of the assessment center).

Source Credibility/Expertise. Perceived source credibility/expertise was assessed with two items developed specifically for this study (e.g., I have confidence that the people who assessed my performance are thoroughly trained raters; $r = .86$).

Message Favorability/Feedback Sign. Because participants' perceptions regarding the favorability of their feedback were not solicited on the reaction survey, these perceptions were measured indirectly by two senior-level assessors who conducted a majority of the actual one-on-one feedback sessions with participants. Depending on the assessment center, these data were gathered six to fourteen months after the time of assessment. After reviewing participants' overall performance on each of the skill dimensions, the assessors made independent ratings of how favorable participants' respective performance profiles were. A 3-point scale was employed to assess favorability, where 1 = "Unfavorable," 2 = "Neutral," and 3 = "Favorable." A couple of actual profile interpretations are offered for clarity purposes. First, consider the case where a participant performed very well on several of the dimensions (e.g., analysis, decisiveness, leadership, initiative, confrontation, self-confidence, stress tolerance) and above average on the others. In other words, no weaknesses were observed by the assessors. In this case, the profile (feedback) was deemed positive or "favorable."

However, in the case where a participant performed well on some dimensions (e.g., confrontation, self-confidence, oral communication), reasonable on others (e.g., leadership, judgment, initiative, stress, decisiveness, tolerance), and still poorly on others (e.g., planning and organizing, analysis, sensitivity), the feedback was deemed middle-of-the-road or "neutral." Finally, consider the case where an individual performed average on some dimensions (e.g., oral communication, sensitivity, decisiveness, planning and organizing, stress tolerance), slightly below average on others (e.g., analysis, judgment), and poorly on the remaining dimensions that could be observed (e.g., leadership, confrontation, initiative, self-confidence). That is, no strengths were observed by the assessors. In this case, the feedback was deemed negative or "unfavorable." Within-group interrater reliability estimates (James, Demaree, & Wolf, 1984) were computed in order to use justify using the average of the assessors' favorability ratings as a clinical-type measure of message favorability. Agreement was quite acceptable, with median and mean correlations of 1.0 and .90, respectively.

Judgment/Decision Making skills. Participants' judgment skills were measured in the assessment center. Individuals who perform well on this dimension develop alternate courses of action, make decisions based on logical assumptions that reflect factual information, provide rationale for decisions/ recommendations, and appropriately weigh and prioritize data. This definition is consistent with past assessment center applications and research (Thornton & Byham, 1982).

Analysis skills. Participants' problem-solving skills were measured in both the assessment center exercises and the Watson-Glaser Critical Thinking Appraisal (Watson & Glaser, 1980). In regard to the former, individuals who perform well on this dimension identify problems, secure relevant information, relate data from different sources, and appreciate subtle, underlying trends and themes among data, and identify possible causes of problems. This definition is consistent with past assessment center

applications and research (Thornton & Byham, 1982).

Critical thinking skills were also evaluated with 80 multiple choice items from the Watson-Glaser Critical Thinking Appraisal (Watson & Glaser, 1980). This instrument measures the ability to recognize assumptions, accurately interpret information, evaluate arguments, and make appropriate inferences based upon observations. The instrument contains problems, statements, arguments, and interpretations of data that similar to those encountered in a managerial environment. Watson and Glaser (1980) report split-half reliability coefficients ranging from .69 to .85, and an alternate-form reliability coefficient of .75.

Self-Confidence. Participants' level of self-confidence was also measured in the assessment center. Individuals who behave in a self-confident manner firmly assert their opinions and beliefs, maintain their position even when faced with opposition, are open to criticism versus becoming defensive, assert uncommon/risky positions, display social poise and presence, and take full responsibility for both success and failures. This definition is consistent with other work on managerial competencies (Boyatzis, 1982).

Tolerance. Individuals tolerance of others was assessed with 32 items from the CPI. This dimension measures one's tolerance of others' beliefs and values (Gough, 1987). Participants who score high on this scale are described as being open-minded, acceptable, non-judgmental, diplomatic, trusting, sincere, or insincere and putting up a front. Conversely, individuals who score low on this scale are skeptical, distrusting, judgmental, or intolerant of others' views and opinions. Such individuals prefer not to rely heavily on others for their success (Gough, 1987; McAllister, 1988). After reading each of the items, participants were asked to indicate whether they agreed ("true") or disagreed ("false") with each statement. Gough (1987) reports coefficient alpha reliabilities ranging from .66 to .70.

Flexibility. Individuals' flexibility was assessed with 28 items from the CPI.

This dimension measures individuals' adaptability, openness to new ideas, and ability to adjust to change, and surprises. Individuals who score high on this scale are characterized as restless and changeable, desiring excitement and new ideas, and easily distractible. On the other hand, low scorers are apt to be cautious and conservative, rigid and inflexible, resistant to change, and risk-adverse (Gough, 1987; McAllister, 1988). Gough (1987) reports coefficient alpha reliabilities ranging from .69 to .72.

Realization of Potential. Participants' level of self-realization was assessed with 58 items from the CPI. This higher order construct measures how successfully an individual has lived up to his/her potential. Individuals who score high on this scale are described as being mature, insightful, optimistic, imaginative, logical, and relatively free of trouble or conflict. Such individuals also tend to have a wide range of interests. Conversely, individuals who score low are seen as unsure of themselves, temperamental, unambitious, dissatisfied, uncomfortable with uncertainty or complexity, and having a narrow range of interests. They do not feel themselves to be fulfilled in life or self-actualized (Gough, 1987). Gough (1987) reports coefficient alpha reliabilities ranging from .83 to .85.

Age. Participants age was obtained from the survey measure.

General Affect/Likeability. General affect towards the assessment center process was assessed with three items based on slightly modified versions of Smither et al.'s (1993) scale and Dodd's (1977) survey items (e.g., I enjoyed this assessment device to a great degree; $\alpha = .69$).

Perceived Job-Relatedness. Research regarding participant reactions to assessment procedures suggests that perceptions of both face validity and predictive validity reflect job-relatedness (Arvey & Sackett, 1993; Smither et al., 1993; Kudisch, Poole, Dobbins, & Ladd, 1994; Steiner & Gilliland, 1996; Rotolo & Kudisch, 1996). In addition, correlational evidence indicates a lack of clear distinction among these

constructs (Kudisch et al., 1994; Rotolo & Kudisch, 1996). Consequently, job-relatedness was conceptualized as a combination of these perspectives and measured with four items based on slightly modified versions of Smither et al.'s (1993) face and predictive validity scales (e.g., I could clearly see the relationship between this tool and what is required on the job; $\alpha = .86$).

Criterion Measures

Feedback Acceptance. Consistent with Ilgen et al.'s (1979) definition of the construct, feedback acceptance was measured with a three-item scale of perceived feedback accuracy adapted from earlier work on this topic (Stone et al., 1984; Stone & Stone, 1985; Burd & Ryan, 1993) (e.g., This instrument accurately identified my managerial skills, abilities, and/or style; $\alpha = .69$).

Statistical Analyses

Preliminary Analyses

Confirmatory factor analysis will be used to examine the underlying factor structure associated with the survey data. This analysis will be conducted using the LISREL VII computer program (Jöreskog & Sörbom, 1989). Fit will be determined by comparing the covariance matrix derived from the measurement models to the covariance matrices of the sample data. If only a small difference exists between the actual and implied matrices, then the hypothesized factor structures are presumed to be consistent with the data. Five indices of fit will be used to evaluate the CFA model, including: (1) chi-square; (2) the goodness-of-fit index (GFI; Jöreskog & Sörbom, 1986); (3) the root mean square residual (RMSR; Jöreskog & Sörbom, 1983); (4) the normed fit index (NFI; Bentler & Bonett, 1980); and (5) the normed comparative fit index (CFI; Bentler, 1990). CFI will be calculated in order to avoid the small sample bias (underestimation of fit) associated with Bentler and Bonett's (1980) NFI. Computation of NFI and CFI required the estimation of a most-restrictive null ("worst-fitting") model.

This was done using SAS (1990). Good fit is indicated by a non-significant chi-square, RMSR values which approach zero, and GFI, NFI, and CFI values which approach unity.

On the other hand, the archival nature of the assessment center data prevented a confirmatory factor analytic examination of the overall dimension ratings. That is, there was a lack of repeated measures, with only single dimension ratings available for research purposes.

Finally, descriptive statistics (means, standard deviations, and ranges) among the study variables will be calculated in order to take another preliminary assessment of the entire data set and examine whether any of the measures suffer from limitations associated with prior studies of this nature (e.g., restriction of range among predictors).

Main Analyses

As an initial test of the aforementioned hypotheses, zero-order correlations will be examined. All those variables with significant bivariate correlations with the dependent variable (perceived feedback accuracy) will be used as input for subsequent analyses.

In order to better understand significant predictors of feedback acceptance and determine their relative importance, dominance analysis (Budescu, 1993), as opposed to traditional multiple regression analysis, will be used. Multiple regression is problematic since it leads to conclusions that are model dependent and are not invariant to subset selection (Budescu, 1993). As a result two researchers who are interested in the relative importance of the same two predictors may reach different conclusions depending on the other predictors included in their models (Budescu, 1993). This approach also assumes that predictors can always be rank ordered, when in fact, complex interrelationships among variables may preclude researchers from doing so. In such cases a partial ordering of variables' importance might be the best a researcher could hope for. On the other hand, dominance analysis offers a newly proposed methodology

for overcoming these weaknesses. In regression analysis, beta weights only take into consideration the proportion of a criterion's variance that is uniquely accounted for by each predictor (e.g., semipartial correlation coefficients). Shared variance between subsets of predictors is not considered. Conversely, by partitioning out common variance into each predictor, dominance analysis takes into consideration the unique and partial joint variance accounted for by each predictor. Through a pairwise comparison of all predictors, a complete or partial rank ordering of variables in a specific model will be established. According to Budescu (1993), a variable is said to dominate or be more important than another competing variable if its predictive ability exceeds the other's in all subset regressions. This method also identifies alternative cases where (a) there are equally important predictors, and (b) the relative importance among variables cannot be determined or meaningfully rank ordered. Because all possible subsets of variables are considered, more general inferences regarding importance can be made.

CHAPTER IV

RESULTS

Preliminary Analyses

Before proceeding with the main analyses, several preliminary assessments of the data were conducted. First, it was necessary to confirm that the survey data were indeed tapping the proposed constructs of interest. Second, it was necessary to calculate descriptive statistics in order to facilitate a psychometric evaluation of the the entire data set.

Confirmatory Factor Analysis

The measurement model that was tested allowed the items representing each of the four survey measures (source credibility, affect/liking, perceived job-relatedness, and feedback accuracy) to load on their respective constructs. The model also allowed all of the latent factors to intercorrelate. As originally specified, the survey data measurement model produced one variance estimate which was out of bounds (e.g., produced a negative variance). After fixing this estimate at zero in accordance with standard CFA practices, the revised model converged on a solution.

The results of this analysis are presented in Table 1. Although modifying models moves a researcher from confirmatory to exploratory analysis (Bollen, 1989; James, Muliak, & Brett, 1982), from a theoretical stance, nothing of real substance was lost by modifying the measurement model. An examination of the goodness-of-fit measures suggested the four-factor structure provided a reasonable, though not exceptional, fit with the data. While some researchers maintain that NFI and CFI values greater than .90 are desirable (Bentler & Bonnett, 1980), others contend that it is difficult to require a specific cutoff for "good" or "bad" fit, and that other parameters should be considered in addition to the overall fit of a model (Bollen, 1989). Toward this end, component fit

Table 1. Goodness-of-Fit Indices for Survey Data Measurement Model

Measurement Model	χ^2	df	GFI	RMSR	NFI	CFI
Null (12 orthogonal factors)	646.16***	66				
4 Factor Model ^a	128.95***	31	.825	.065	.800	.862

Note. N=107. ^aRepresents a modified version of original measurement model necessary for LISREL to converge; GFI = goodness-of-fit index; RMSR = root mean square residual; NFI = normed fit index; CFI = normed comparative fit index; *** $p < .001$

measures were also examined (c.f., Bollen, 1989; James, Muliak, & Brett, 1982). A review of the parameter estimates provided further empirical support for the hypothesized factor structure. That is, all of the indicants of the measurement model had significant and sizable loadings on their respective latent variables (M loading = .722; $p < .05$). Taken together, preliminary analyses suggested that sufficient evidence existed to warrant the use of the original four survey measures in subsequent analyses.

Descriptive Statistics

The descriptive statistics for all the study variables are presented in Table 2. While the total possible sample size for this study was 107 participants, the actual sample sizes for the various measures ranged from 67 to 107 due to missing data. Because the assessment center dimension of self-confidence was often difficult to rate, the number of cases on which the statistics were based was considerably less than the other study variables. An examination of the standard deviation estimates for the three assessment center dimensions, particularly the analysis and judgment dimensions, showed that these particular measures may have suffered from some range restriction.

Table 2. Descriptive Statistics for Study Variables

Variable	# Items	N	M	SD	Minimum	Maximum
1. Feedback Acceptance ^a	3	107	3.76	.67	1.67	5.00
2. Source Credibility/Expertise ^a	2	107	3.88	.87	1.50	5.00
3. Feedback Favorability ^b	1	107	2.27	.73	1.00	3.00
4. Analysis/Problem-Solving ^c	1	107	3.30	.48	2.00	4.50
5. Critical Thinking ^d	80	107	64.45	7.07	44.00	76.00
6. Judgment ^c	1	107	3.29	.45	2.00	4.00
7. Tolerance ^e	32	106	55.34	6.90	39.00	67.00
8. Flexibility ^e	28	106	49.65	10.82	26.00	73.00
9. Realization of Potential ^e	58	106	54.62	6.53	35.00	66.00
10. Age	1	105	45.04	7.18	28.00	59.00
11. Self-Confidence ^c	1	67	3.38	.59	2.00	4.50
12. Job-Relatedness ^a	4	94	3.88	.79	1.75	5.00
13. Affect/Liking ^a	3	107	4.02	.70	1.67	5.00

Note. "a" denotes measured by survey instrument; "b" denotes measured by assessors; "c" denotes measured by assessment center exercises; "d" denotes measured by Watson-Glaser Critical Thinking Appraisal (CTA); "e" denotes measured by California Psychological Inventory (CPI). Scale values for survey items range from 1 = "Strongly Disagree" to 5 = "Strongly Agree." Scale values for Feedback Favorability range from 1 = "Unfavorable" to 3 = "Favorable." Scale values for assessment center dimensions range from 1 = "Unsatisfactory" to 5 = "Outstanding." The CTA and CPI are scored so that higher values are associated with more favorable standings on the variables.

Main Analyses

In order to test the study hypotheses, zero-order correlations were conducted. Significant findings were then subjected to a dominance analysis to determine the relative rank ordering among predictors of feedback acceptance.

Zero-Order Correlations

The zero-order correlations among the study variables are presented in Table 3. Correlations between pairs of predictors ranged from $-.33$ to $.75$, with median and mean correlations of $.13$ and $.17$, respectively. According to the results, the strongest correlations among the predictors were between realization of potential and tolerance ($r = .75$), judgment and feedback favorability ($r = .69$), judgment and analysis/problem-solving ($r = .65$), self-confidence and feedback favorability ($r = .63$), analysis/problem-solving and feedback favorability ($r = .62$), affect toward the assessment center and job-relatedness ($r = .56$), and affect toward the center and source expertise ($r = .50$).

The zero-order correlations between the predictors and the criterion measure generally demonstrated support for the hypothesized relationships. The specific results are reported by each hypothesis.

Hypothesis 1. Source Expertise and Feedback Acceptance. It was hypothesized that participants would be more willing to accept their feedback that was provided by an expert source. As predicted, source expertise was significantly and positively related to feedback acceptance ($r = .52, p < .01$). Hence, participants were more apt to accept their developmental assessment center feedback when they perceived the assessors as expert raters.

Hypothesis 2. Feedback Favorability and Feedback Acceptance. Hypothesis 2 predicted that participants would be more receptive towards favorable feedback than unfavorable feedback. Feedback favorability was significantly and positively related to feedback acceptance ($r = .48, p < .01$). Thus, Hypothesis 2 was supported. The results

Table 3. Zero-Order Correlations Among Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Feedback Acceptance ^a	-												
2. Source Expertise/Credibility ^a	.52**	-											
3. Feedback Favorability ^b	.48**	.16	-										
4. Analysis/Problem-Solving ^c	.32**	.16	.62**	-									
5. Critical Thinking ^d	.31**	.13	.29**	.33**	-								
6. Judgment ^c	.41**	.11	.69**	.65**	.23*	-							
7. Tolerance ^e	.09	.13	.03	.13	.27**	.08	-						
8. Flexibility ^e	-.03	.08	.09	.02	.19	-.02	.23*	-					
9. Realization of Potential ^e	.09	.09	.08	.14	.34**	.14	.75**	.45**	-				
10. Age	-.12	-.04	-.08	-.22*	-.28**	-.14	-.25**	-.27**	-.33**	-			
11. Self-Confidence ^c	.33**	.20	.63**	.28*	.02	.40**	-.04	.03	-.07	.22	-		
12. Job-Relatedness ^a	.60**	.44**	.23*	.31**	.35**	.37**	.33**	-.07	.25**	-.19	.10	-	
13. Affect/Liking ^a	.48**	.50**	.07	.02	.05	.13	.04	.09	.01	-.04	.14	.56**	-

Note N ranges from 67-107; "a" denotes measured by survey instrument; "b" denotes measured by assessors; "c" denotes measured by assessment center exercises; "d" denotes measured by Waston-Glaser Critical Thinking Appraisal; "e" denotes measured by California Psychological Inventory; * $p < .05$, two-tailed; ** $p < .01$, two-tailed.

suggest that individuals who received positive feedback were more likely to accept their feedback than those who received negative feedback.

Hypotheses 3a & 3b. Recipients' Cognitive-Related Skills and Feedback Acceptance. It was proposed that individuals who had better analysis and critical thinking skills would be more likely to perceive their feedback as accurate. The hypothesized positive relationship between recipients' analysis/problem-solving skills and feedback acceptance was supported ($r = .32, p < .01$), as was the positive relationship between recipients' critical thinking skills and feedback acceptance ($r = .31, p < .01$). Together, these findings suggest that participants with stronger cognitive ability skills were more accepting of their developmental assessment center feedback than were their cognitively weaker counterparts.

Hypotheses 3c. Recipients' Judgment/Decision Making Skills and Feedback Acceptance. Hypothesis 3c stated that recipients who had better judgment and decision making skills would be more apt to perceive their feedback as accurate. This proposition was also supported ($r = .41, p < .01$). This suggests that participants who possessed better decision making skills were more likely to accept their developmental assessment center feedback.

Hypotheses 4. Recipients' Tolerance and Feedback Acceptance. Hypothesis 4 stated that individuals who were more open to others' beliefs and values would be more accepting of their feedback. While the correlation between recipients' tolerance of others and acceptance of feedback was in the expected direction, it was not significant ($r = .09$). Thus, Hypothesis 4 was not supported.

Hypotheses 5. Recipients' Flexibility and Feedback Acceptance. According to Hypothesis 5, individuals who were adaptable and open to new ideas would be more inclined to accept their assessment center feedback. The expected positive relationship between recipients' flexibility and feedback acceptance was contradicted by a negative

correlation ($r = -.03$). The correlation, however, failed to achieve significance. Thus, Hypothesis 5 was not supported.

Hypotheses 6. Recipients' Realization of Potential and Feedback Acceptance. It was proposed that individuals who had higher levels of self-realization would be more likely to accept their feedback. While the correlation between recipients' realization of potential and their acceptance of feedback was in the expected direction, it was not significant ($r = .09$). Therefore, Hypothesis 6 was not supported.

Hypotheses 7. Recipients' Age and Feedback Acceptance. It was predicted that there would be a negative relationship between recipients' age and acceptance of developmental assessment center feedback. While the correlation between age and feedback acceptance was in the anticipated direction, it did not achieve significance ($r = -.12$). Therefore, Hypothesis 7 was not supported.

Hypothesis 8. Recipients' Self-Confidence and Feedback Acceptance. Hypothesis 8 suggested that confident individuals would be more open and accepting of feedback than less confident individuals. As predicted, recipients' level of self-confidence was significantly and positively related to feedback acceptance ($r = .33$, $p < .01$). Thus, participants with high self-confidence were more likely to accept their developmental assessment center feedback.

Hypothesis 9. Perceived Job-Relatedness and Feedback Acceptance. This hypothesis stated that recipients who viewed the assessment exercises as job-related would be more receptive towards their feedback. The expected positive relationship between perceived job-relatedness and feedback acceptance was obtained. In fact, this particular variable had the strongest correlation with feedback acceptance ($r = .60$, $p < .01$). Thus, Hypothesis 9 was supported. This finding demonstrates that participants were more likely to perceive their developmental feedback as accurate when they perceived the assessment center exercises as realistic portrayals of tasks and

activities found in their jobs.

Hypothesis 10. General Affect/Liking and Feedback Acceptance. The last hypothesis suggested that those individuals who reacted favorably to the entire assessment experience would be more likely to accept their feedback. As proposed, recipients' general affect toward the assessment center was significantly and positively correlated with feedback acceptance ($r = .48, p < .01$). Therefore, the more participants enjoyed the assessment process, the more likely they were to perceive their feedback as accurate.

Overall, results of the zero-order correlations showed support for all of the hypothesized relationships between feedback source, message, and context factors and feedback acceptance. On the other hand, only partial support was obtained for the hypothesized relationships between recipient characteristics and acceptance. Although the results supported the positive relationships between feedback acceptance and recipients' skills and abilities, they failed to support the links between (a) recipients' personality styles and acceptance; and (b) recipients' age and acceptance.

Dominance Analysis

The eight predictors that had significant bivariate relationships with feedback acceptance (source expertise/credibility, feedback favorability, analysis/problem-solving, critical thinking, judgment/decision making, self-confidence, perceived job-relatedness, general affect/liking) were used as input for the dominance analysis. According to the definition of dominance, before making pairwise comparisons of the usefulness of the predictors, one must obtain the squared multiple correlations of all the possible models involving the predictors of interest (Budescu, 1993). For the purposes of this study, this meant obtaining all 255 squared multiple correlations. Table 4 presents the results of this analysis. The values are presented in lexicographical order.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)							
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT	AFFECT
None	0	0.2315	0.2314	0.0681	0.0728	0.1806	0.1918	0.2980	0.2451
SOURCED	0.2315	-	0.1544	0.0350	0.0430	0.1570	0.0904	0.1471	0.0954
FBSIGN	0.2314	0.1545	-	0.0000	0.0101	0.0188	0.0344	0.2463	0.2026
AN	0.0681	0.1984	0.1633	-	0.0329	0.1139	0.1576	0.2660	0.2567
WG	0.0728	0.2017	0.1687	0.0282	-	0.1309	0.1752	0.2429	0.2409
JG	0.1806	0.2079	0.0695	0.0014	0.0231	-	0.0853	0.2107	0.1879
SCF	0.1918	0.1301	0.0740	0.0340	0.0563	0.0741	-	0.2550	0.1823
JOBRELAT	0.2980	0.0806	0.1797	0.0361	0.0177	0.0933	0.1487	-	0.0612
AFFECT	0.2451	0.0817	0.1889	0.0797	0.0686	0.1234	0.1289	0.1140	-
SOURCED FBSIGN	0.3859	-	-	0.0005	0.0056	0.0315	0.0079	0.1379	0.0936
SOURCED AN	0.2666	-	0.1198	-	0.0216	0.1344	0.0768	0.1371	0.1131
SOURCED WG	0.2745	-	0.1170	0.0136	-	0.1235	0.0861	0.1195	0.1023
SOURCED JG	0.3885	-	0.0288	0.0124	0.0095	-	0.0237	0.0902	0.0643
SOURCED SCF	0.3219	-	0.0719	0.0214	0.0387	0.0904	-	0.1553	0.0902
SOURCED JOBRELAT	0.3786	-	0.1452	0.0251	0.0154	0.1002	0.0986	-	0.0275
SOURCED AFFECT	0.3269	-	0.1526	0.0527	0.0499	0.1260	0.0852	0.0792	-
FBSIGN AN	0.2314	0.1550	-	-	0.0107	0.0249	0.0362	0.2481	0.2055
FBSIGN WG	0.2416	0.1499	-	0.0006	-	0.0170	0.0437	0.2365	0.2046
FBSIGN JG	0.2502	0.1672	-	0.0061	0.0084	-	0.0348	0.2284	0.1905
FBSIGN SCF	0.2658	0.1280	-	0.0018	0.0195	0.0192	-	0.2391	0.1836
FBSIGN JOBRELAT	0.4777	0.0460	-	0.0018	0.0003	0.0008	0.0271	-	0.0515
FBSIGN AFFECT	0.4340	0.0454	-	0.0029	0.0122	0.0066	0.0153	0.0952	-
AN WG	0.1010	0.1871	0.1411	-	-	0.1096	0.1570	0.2375	0.2504
AN JG	0.1820	0.2190	0.0743	-	0.0286	-	0.0839	0.2097	0.1893
AN SCF	0.2258	0.1176	0.0418	-	0.0322	0.0402	-	0.2368	0.1955
AN JOBRELAT	0.3341	0.0696	0.1454	-	0.0044	0.0576	0.1285	-	0.0755

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)							
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT	AFFECT
AN AFFECT	0.3248	0.0548	0.1121	-	0.0267	0.0465	0.0965	0.0848	-
WG JG	0.2037	0.1943	0.0549	0.0069	-	-	0.0897	0.1911	0.1923
WG SCF	0.2480	0.1125	0.0372	0.0100	-	0.0454	-	0.2115	0.1816
WG JOBRELAT	0.3158	0.0782	0.1623	0.0228	-	0.0791	0.1438	-	0.0724
WG AFFECT	0.3137	0.0631	0.1325	0.0378	-	0.0823	0.1159	0.0745	-
JG SCF	0.2659	0.1463	0.0190	0.0000	0.0275	-	-	0.2091	0.1615
JG JOBRELAT	0.3913	0.0875	0.0873	0.0004	0.0035	-	0.0838	-	0.0549
JG AFFECT	0.3685	0.0843	0.0722	0.0028	0.0275	-	0.0589	0.0777	-
SCF JOBRELAT	0.4468	0.0305	0.0581	0.0158	0.0128	0.0283	-	-	0.0382
SCF AFFECT	0.3740	0.0380	0.0753	0.0472	0.0556	0.0534	-	0.1109	-
JOBRELAT AFFECT	0.3592	0.0469	0.1701	0.0504	0.0290	0.0870	0.1258	-	-
SOURCED FBSIGN AN	0.3864	-	-	-	0.0069	0.0487	0.0074	0.1397	0.0938
SOURCED FBSIGN WG	0.3915	-	-	0.0018	-	0.0297	0.0117	0.1324	0.0966
SOURCED FBSIGN JG	0.4174	-	-	0.0177	0.0038	-	0.0074	0.1121	0.0768
SOURCED FBSIGN SCF	0.3938	-	-	0.0000	0.0093	0.0309	-	0.1428	0.0921
SOURCED FBSIGN JOBRELAT	0.5238	-	-	0.0023	0.0001	0.0057	0.0128	-	0.0283
SOURCED FBSIGN AFFECT	0.4795	-	-	0.0007	0.0085	0.0147	0.0064	0.0726	-
SOURCED AN WG	0.2881	-	0.1051	-	-	0.1302	0.0784	0.1204	0.1132
SOURCED AN JG	0.4010	-	0.0341	-	0.0173	-	0.0181	0.0839	0.0529
SOURCED AN SCF	0.3433	-	0.0505	-	0.0232	0.0758	-	0.1470	0.1045
SOURCED AN JOBRELAT	0.4037	-	0.1224	-	0.0048	0.0812	0.0866	-	0.0389
SOURCED AN AFFECT	0.3796	-	0.1006	-	0.0217	0.0743	0.0682	0.0630	-
SOURCED WG JG	0.3980	-	0.0232	0.0203	-	-	0.0268	0.0830	0.0699
SOURCED WG SCF	0.3606	-	0.0426	0.0060	-	0.0642	-	0.1287	0.0967
SOURCED WG JOBRELAT	0.3940	-	0.1299	0.0146	-	0.0870	0.0953	-	0.0355
SOURCED WG AFFECT	0.3768	-	0.1112	0.0245	-	0.0911	0.0805	0.0527	-
SOURCED JG SCF	0.4123	-	0.0125	0.0068	0.0125	-	-	0.1061	0.0670
SOURCED JG JOBRELAT	0.4788	-	0.0507	0.0062	0.0022	-	0.0396	-	0.0218

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)							
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT	AFFECT
SOURCED JG AFFECT	0.4528	-	0.0413	0.0011	0.0151	-	0.0264	0.0477	-
SOURCED SCF JOBRELAT	0.4772	-	0.0594	0.0131	0.0121	0.0411	-	-	0.0229
SOURCED SCF AFFECT	0.4121	-	0.0738	0.0358	0.0452	0.0672	-	0.0880	-
SOURCED JOBRELAT AFFECT	0.4061	-	0.1460	0.0365	0.0234	0.0945	0.0940	-	-
FBSIGN AN WG	0.2421	0.1511	-	-	-	0.0274	0.0432	0.2374	0.2048
FBSIGN AN JG	0.2563	0.1788	-	-	0.0133	-	0.0298	0.2266	0.1845
FBSIGN AN SCF	0.2676	0.1262	-	-	0.0178	0.0185	-	0.2373	0.1882
FBSIGN AN JOBRELAT	0.4795	0.0466	-	-	0.0001	0.0033	0.0254	-	0.0498
FBSIGN AN AFFECT	0.4369	0.0433	-	-	0.0100	0.0039	0.0188	0.0924	-
FBSIGN WG JG	0.2586	0.1626	-	0.0110	-	-	0.0434	0.2203	0.1931
FBSIGN WG SCF	0.2852	0.1179	-	0.0001	-	0.0167	-	0.2199	0.1829
FBSIGN WG JOBRELAT	0.4780	0.0459	-	0.0015	-	0.0009	0.0271	-	0.0517
FBSIGN WG AFFECT	0.4462	0.0418	-	0.0007	-	0.0054	0.0219	0.0836	-
FBSIGN JG SCF	0.2849	0.1398	-	0.0012	0.0170	-	-	0.2209	0.1716
FBSIGN JG JOBRELAT	0.4786	0.0509	-	0.0043	0.0003	-	0.0273	-	0.0514
FBSIGN JG AFFECT	0.4407	0.0535	-	0.0002	0.0110	-	0.0159	0.0893	-
FBSIGN SCF JOBRELAT	0.5049	0.0318	-	0.0000	0.0003	0.0010	-	-	0.0426
FBSIGN SCF AFFECT	0.4494	0.0365	-	0.0064	0.0187	0.0072	-	0.0981	-
FBSIGN JOBRELAT AFFECT	0.5293	0.0228	-	0.0000	0.0005	0.0007	0.0181	-	-
AN WG JG	0.2106	0.2077	0.0589	-	-	-	0.0849	0.1858	0.1854
AN WG SCF	0.2580	0.1085	0.0274	-	-	0.0375	-	0.2096	0.1901
AN WG JOBRELAT	0.3386	0.0700	0.1410	-	-	0.0579	0.1291	-	0.0801
AN WG AFFECT	0.3515	0.0499	0.0954	-	-	0.0446	0.0967	0.0672	-
AN JG SCF	0.2659	0.1532	0.0202	-	0.0296	-	-	0.2095	0.1680
AN JG JOBRELAT	0.3917	0.0932	0.0911	-	0.0047	-	0.0837	-	0.0555
AN JG AFFECT	0.3713	0.0826	0.0695	-	0.0247	-	0.0626	0.0759	-

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)							
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT	AFFECT
AN SCF JOBRELAT	0.4626	0.0277	0.0423	-	0.0051	0.0128	-	-	0.0477
AN SCF AFFECT	0.4213	0.0266	0.0345	-	0.0268	0.0127	-	0.0890	-
AN JOBRELAT AFFECT	0.4096	0.0330	0.1197	-	0.0090	0.0375	0.1007	-	-
WG JG SCF	0.2934	0.1313	0.0085	0.0021	-	-	-	0.1871	0.1651
WG JG JOBRELAT	0.3948	0.0861	0.0841	0.0016	-	-	0.0857	-	0.0610
WG JG AFFECT	0.3960	0.0719	0.0556	0.0000	-	-	0.0626	0.0598	-
WG SCF JOBRELAT	0.4595	0.0298	0.0456	0.0081	-	0.0210	-	-	0.0463
WG SCF AFFECT	0.4296	0.0277	0.0385	0.0185	-	0.0290	-	0.0763	-
WG JOBRELAT AFFECT	0.3882	0.0413	0.1416	0.0304	-	0.0676	0.1177	-	-
JG SCF JOBRELAT	0.4751	0.0433	0.0308	0.0003	0.0054	-	-	-	0.0391
JG SCF AFFECT	0.4274	0.0519	0.0291	0.0066	0.0312	-	-	0.0867	-
JG JOBRELAT AFFECT	0.4462	0.0544	0.0837	0.0010	0.0096	-	0.0679	-	-
SCF JOBRELAT AFFECT	0.4850	0.0151	0.0624	0.0253	0.0209	0.0291	-	-	-
SOURCED FBSIGN AN WG	0.3932	-	-	-	-	0.0514	0.0104	0.1329	0.0948
SOURCED FBSIGN AN JG	0.4351	-	-	-	0.0095	-	0.0025	0.1048	0.0616
SOURCED FBSIGN AN SCF	0.3938	-	-	-	0.0098	0.0438	-	0.1433	0.0942
SOURCED FBSIGN AN JOBRELAT	0.5261	-	-	-	0.0000	0.0138	0.0110	-	0.0262
SOURCED FBSIGN AN AFFECT	0.4802	-	-	-	0.0078	0.0165	0.0079	0.0721	-
SOURCED FBSIGN WG JG	0.4212	-	-	0.0234	-	-	0.0104	0.1084	0.0797
SOURCED FBSIGN WG SCF	0.4031	-	-	0.0005	-	0.0284	-	0.1337	0.0954
SOURCED FBSIGN WG JOBRELAT	0.5239	-	-	0.0022	-	0.0057	0.0129	-	0.0285
SOURCED FBSIGN WG AFFECT	0.4880	-	-	0.0000	-	0.0129	0.0105	0.0644	-
SOURCED FBSIGN JG SCF	0.4248	-	-	0.0128	0.0068	-	-	0.1169	0.0755
SOURCED FBSIGN JG JOBRELAT	0.5295	-	-	0.0105	0.0001	-	0.0122	-	0.0263
SOURCED FBSIGN JG AFFECT	0.4941	-	-	0.0026	0.0067	-	0.0062	0.0617	-
SOURCED FBSIGN SCF JOBRELAT	0.5366	-	-	0.0005	0.0002	0.0051	-	-	0.0261

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)							
		SOURCRED	FBSIGN	AN	WG	JG	SCF	JOBRELAT	AFFECT
SOURCRED FBSIGN SCF AFFECT	0.4859	-	-	0.0022	0.0127	0.0144	-	0.0768	-
SOURCRED FBSIGN JOBRELAT AFFECT	0.5521	-	-	0.0002	0.0003	0.0037	0.0106	-	-
SOURCRED AN WG JG	0.4183	-	0.0263	-	-	-	0.0196	0.0719	0.0539
SOURCRED AN WG SCF	0.3665	-	0.0371	-	-	0.0714	-	0.1290	0.1046
SOURCRED AN WG JOBRELAT	0.4085	-	0.1176	-	-	0.0817	0.0870	-	0.0423
SOURCRED AN WG AFFECT	0.4013	-	0.0867	-	-	0.0709	0.0698	0.0495	-
SOURCRED AN JG SCF	0.4191	-	0.0185	-	0.0189	-	-	0.1006	0.0602
SOURCRED AN JG JOBRELAT	0.4849	-	0.0550	-	0.0053	-	0.0347	-	0.0169
SOURCRED AN JG AFFECT	0.4539	-	0.0428	-	0.0183	-	0.0254	0.0480	-
SOURCRED AN SCF JOBRELAT	0.4903	-	0.0468	-	0.0053	0.0294	-	-	0.0309
SOURCRED AN SCF AFFECT	0.4479	-	0.0402	-	0.0232	0.0314	-	0.0734	-
SOURCRED AN JOBRELAT AFFECT	0.4426	-	0.1096	-	0.0082	0.0592	0.0786	-	-
SOURCRED WG JG SCF	0.4248	-	0.0068	0.0132	-	-	-	0.0972	0.0738
SOURCRED WG JG JOBRELAT	0.4810	-	0.0486	0.0092	-	-	0.0411	-	0.0252
SOURCRED WG JG AFFECT	0.4679	-	0.0329	0.0043	-	-	0.0307	0.0383	-
SOURCRED WG SCF JOBRELAT	0.4893	-	0.0475	0.0062	-	0.0327	-	-	0.0295
SOURCRED WG SCF AFFECT	0.4573	-	0.0412	0.0138	-	0.0413	-	0.0615	-
SOURCRED WG JOBRELAT AFFECT	0.4295	-	0.1229	0.0214	-	0.0767	0.0893	-	-
SOURCRED JG SCF JOBRELAT	0.5184	-	0.0233	0.0013	0.0036	-	-	-	0.0204
SOURCRED JG SCF AFFECT	0.4793	-	0.0210	0.0000	0.0193	-	-	0.0595	-
SOURCRED JG JOBRELAT AFFECT	0.5006	-	0.0552	0.0013	0.0056	-	0.0382	-	-
SOURCRED SCF JOBRELAT AFFECT	0.5001	-	0.0626	0.0211	0.0187	0.0387	-	-	-
FBSIGN AN WG JG	0.2696	0.1750	-	-	-	-	0.0365	0.2133	0.1823
FBSIGN AN WG SCF	0.2854	0.1182	-	-	-	0.0207	-	0.2199	0.1853
FBSIGN AN WG JOBRELAT	0.4796	0.0465	-	-	-	0.0033	0.0257	-	0.0502
FBSIGN AN WG AFFECT	0.4469	0.0411	-	-	-	0.0049	0.0238	0.0829	-

Note. SOURCRED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)							
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT	AFFECT
FBSIGN AN JG SCF	0.2861	0.1515	-	-	0.0199	-	-	0.2204	0.1721
FBSIGN AN JG JOBRELAT	0.4829	0.0571	-	-	0.0000	-	0.0237	-	0.0473
FBSIGN AN JG AFFECT	0.4408	0.0559	-	-	0.0110	-	0.0174	0.0893	-
FBSIGN AN SCF JOBRELAT	0.5049	0.0322	-	-	0.0004	0.0017	-	-	0.0433
FBSIGN AN SCF AFFECT	0.4557	0.0323	-	-	0.0149	0.0025	-	0.0924	-
FBSIGN AN JOBRELAT AFFECT	0.5293	0.0230	-	-	0.0005	0.0009	0.0189	-	-
FBSIGN WG JG SCF	0.3020	0.1296	-	0.0041	-	-	-	0.2042	0.1718
FBSIGN WG JG JOBRELAT	0.4789	0.0507	-	0.0040	-	-	0.0273	-	0.0515
FBSIGN WG JG AFFECT	0.4516	0.0492	-	0.0002	-	-	0.0222	0.0788	-
FBSIGN WG SCF JOBRELAT	0.5052	0.0316	-	0.0001	-	0.0010	-	-	0.0446
FBSIGN WG SCF AFFECT	0.4681	0.0304	-	0.0026	-	0.0057	-	0.0817	-
FBSIGN WG JOBRELAT AFFECT	0.5298	0.0226	-	0.0000	-	0.0006	0.0200	-	-
FBSIGN JG SCF JOBRELAT	0.5059	0.0358	-	0.0007	0.0003	-	-	-	0.0424
FBSIGN JG SCF AFFECT	0.4565	0.0438	-	0.0017	0.0173	-	-	0.0917	-
FBSIGN JG JOBRELAT AFFECT	0.5299	0.0259	-	0.0002	0.0005	-	0.0183	-	-
FBSIGN SCF JOBRELAT AFFECT	0.5474	0.0153	-	0.0007	0.0024	0.0008	-	-	-
AN WG JG SCF	0.2956	0.1424	0.0105	-	-	-	-	0.1850	0.1641
AN WG JG JOBRELAT	0.3964	0.0938	0.0865	-	-	-	0.0841	-	0.0594
AN WG JG AFFECT	0.3960	0.0762	0.0558	-	-	-	0.0637	0.0598	-
AN WG SCF JOBRELAT	0.4677	0.0279	0.0376	-	-	0.0128	-	-	0.0514
AN WG SCF AFFECT	0.4481	0.0230	0.0225	-	-	0.0116	-	0.0710	-
AN WG JOBRELAT AFFECT	0.4186	0.0322	0.1112	-	-	0.0372	0.1005	-	-
AN JG SCF JOBRELAT	0.4754	0.0443	0.0312	-	0.0051	-	-	-	0.0423
AN JG SCF AFFECT	0.4340	0.0453	0.0242	-	0.0257	-	-	0.0837	-
AN JG JOBRELAT AFFECT	0.4472	0.0547	0.0830	-	0.0086	-	0.0705	-	-
AN SCF JOBRELAT AFFECT	0.5103	0.0109	0.0379	-	0.0088	0.0074	-	-	-

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)						
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT
WG JG SCF JOBRELAT	0.4805	0.0415	0.0257	0.0000	-	-	-	0.0447
WG JG SCF AFFECT	0.4586	0.0400	0.0152	0.0011	-	-	-	-
WG JG JOBRELAT AFFECT	0.4558	0.0504	0.0746	0.0000	-	-	0.0694	-
WG SCF JOBRELAT AFFECT	0.5059	0.0129	0.0439	0.0132	-	0.0194	-	-
JG SCF JOBRELAT AFFECT	0.5141	0.0246	0.0341	0.0036	0.0111	-	-	-
SOURCED FBSIGN AN WG JG	0.4446	-	-	-	-	-	0.0044	0.0956
SOURCED FBSIGN AN WG SCF	0.4036	-	-	-	-	0.0454	-	0.1339
SOURCED FBSIGN AN WG JOBRELAT	0.5261	-	-	-	-	0.0141	0.0114	-
SOURCED FBSIGN AN WG AFFECT	0.4880	-	-	-	-	0.0180	0.0111	0.0647
SOURCED FBSIGN AN JG SCF	0.4376	-	-	-	0.0114	-	-	0.1094
SOURCED FBSIGN AN JG JOBRELAT	0.5400	-	-	-	0.0003	-	0.0071	-
SOURCED FBSIGN AN JG AFFECT	0.4967	-	-	-	0.0094	-	0.0044	0.0624
SOURCED FBSIGN AN SCF JOBRELAT	0.5371	-	-	-	0.0003	0.0099	-	-
SOURCED FBSIGN AN SCF AFFECT	0.4881	-	-	-	0.0111	0.0131	-	0.0257
SOURCED FBSIGN AN JOBRELAT AFFECT	0.5523	-	-	-	0.0005	0.0068	0.0105	-
SOURCED FBSIGN WG JG SCF	0.4316	-	-	0.0174	-	-	-	0.1103
SOURCED FBSIGN WG JG JOBRELAT	0.5296	-	-	0.0107	-	-	0.0122	-
SOURCED FBSIGN WG JG AFFECT	0.5009	-	-	0.0052	-	-	0.0098	0.0552
SOURCED FBSIGN WG SCF JOBRELAT	0.5368	-	-	0.0007	-	0.0050	-	-
SOURCED FBSIGN WG SCF AFFECT	0.4985	-	-	0.0006	-	0.0121	-	0.0658
SOURCED FBSIGN WG JOBRELAT AFFECT	0.5524	-	-	0.0003	-	0.0037	0.0119	-
SOURCED FBSIGN JG SCF JOBRELAT	0.5417	-	-	0.0053	0.0001	-	-	0.0244
SOURCED FBSIGN JG SCF AFFECT	0.5003	-	-	0.0008	0.0104	-	-	0.0657
SOURCED FBSIGN JG JOBRELAT AFFECT	0.5558	-	-	0.0033	0.0003	-	0.0102	-
SOURCED FBSIGN SCF JOBRELAT AFFECT	0.5627	-	-	0.0001	0.0016	0.0033	-	-
SOURCED AN WG JG SCF	0.4380	-	0.0111	-	-	-	-	0.0871
								0.0616

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Contribution of (Semi-Partial)									
Variable(s)	R ²	SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT	AFFECT
SOURCED AN WG JG JOBRELAT	0.4902	-	0.0501	-	-	-	0.0349	-	0.0192
SOURCED AN WG JG AFFECT	0.4722	-	0.0339	-	-	-	0.0273	0.0372	-
SOURCED AN WG SCF JOBRELAT	0.4956	-	0.0419	-	-	0.0295	-	-	0.0340
SOURCED AN WG SCF AFFECT	0.4711	-	0.0280	-	-	0.0284	-	0.0585	-
SOURCED AN WG JOBRELAT AFFECT	0.4508	-	0.1019	-	-	0.0585	0.0787	-	-
SOURCED AN JG SCF JOBRELAT	0.5197	-	0.0273	-	0.0054	-	-	-	0.0191
SOURCED AN JG SCF AFFECT	0.4793	-	0.0218	-	0.0202	-	-	0.0595	-
SOURCED AN JG JOBRELAT AFFECT	0.5019	-	0.0572	-	0.0075	-	0.0369	-	-
SOURCED AN SCF JOBRELAT AFFECT	0.5212	-	0.0415	-	0.0083	0.0176	-	-	-
SOURCED WG JG SCF JOBRELAT	0.5220	-	0.0198	0.0031	-	-	-	-	0.0244
SOURCED WG JG SCF AFFECT	0.4986	-	0.0121	0.0009	-	-	-	0.0479	-
SOURCED WG JG JOBRELAT AFFECT	0.5062	-	0.0499	0.0032	-	-	0.0403	-	-
SOURCED WG SCF JOBRELAT AFFECT	0.5188	-	0.0455	0.0108	-	0.0277	-	-	-
SOURCED JG SCF JOBRELAT AFFECT	0.5388	-	0.0273	0.0001	0.0077	-	-	-	-
FBSIGN AN WG JG SCF	0.3061	0.1430	-	-	-	-	-	0.2011	0.1679
FBSIGN AN WG JG JOBRELAT	0.4829	0.0574	-	-	-	-	0.0243	-	0.0480
FBSIGN AN WG JG AFFECT	0.4519	0.0542	-	-	-	-	0.0221	0.0790	-
FBSIGN AN WG SCF JOBRELAT	0.5053	0.0322	-	-	-	0.0019	-	-	0.0449
FBSIGN AN WG SCF AFFECT	0.4707	0.0285	-	-	-	0.0033	-	0.0795	-
FBSIGN AN WG JOBRELAT AFFECT	0.5298	0.0229	-	-	-	0.0010	0.0204	-	-
FBSIGN AN JG SCF JOBRELAT	0.5066	0.0404	-	-	0.0006	-	-	-	0.0419
FBSIGN AN JG SCF AFFECT	0.4582	0.0429	-	-	0.0157	-	-	0.0902	-
FBSIGN AN JG JOBRELAT AFFECT	0.5302	0.0289	-	-	0.0007	-	0.0183	-	-
FBSIGN AN SCF JOBRELAT AFFECT	0.5482	0.0146	-	-	0.0020	0.0003	-	-	-
FBSIGN WG JG SCF JOBRELAT	0.5062	0.0357	-	0.0010	-	-	-	-	0.0444
FBSIGN WG JG SCF AFFECT	0.4738	0.0369	-	0.0002	-	-	-	0.0768	-

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)						
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT AFFECT
FBSIGN WG JG JOBRELAT AFFECT	0.5304	0.0257	-	0.0004	-	-	0.0202	-
FBSIGN WG SCF JOBRELAT AFFECT	0.5498	0.0145	-	0.0003	-	0.0008	-	-
FBSIGN JG SCF JOBRELAT AFFECT	0.5482	0.0178	-	0.0002	0.0023	-	-	-
AN WG JG SCF JOBRELAT	0.4805	0.0446	0.0266	-	-	-	-	0.0458
AN WG JG SCF AFFECT	0.4597	0.0398	0.0142	-	-	-	-	0.0666
AN WG JG JOBRELAT AFFECT	0.4558	0.0536	0.0750	-	-	0.0705	-	-
AN WG SCF JOBRELAT AFFECT	0.5191	0.0105	0.0311	-	-	0.0072	-	-
AN JG SCF JOBRELAT AFFECT	0.5177	0.0211	0.0308	-	0.0086	-	-	-
WG JG SCF JOBRELAT AFFECT	0.5252	0.0212	0.0253	0.0011	-	-	-	-
SOURCED FBSIGN AN WG JG SCF	0.4490	-	-	-	-	-	-	0.0989
SOURCED FBSIGN AN WG JG JOBRELAT	0.5403	-	-	-	-	-	0.0076	0.0640
SOURCED FBSIGN AN WG JG AFFECT	0.5061	-	-	-	-	-	0.0069	0.0198
SOURCED FBSIGN AN WG SCF JOBRELAT	0.5375	-	-	-	-	0.0104	-	-
SOURCED FBSIGN AN WG SCF AFFECT	0.4991	-	-	-	-	0.0139	-	0.0268
SOURCED FBSIGN AN WG JOBRELAT AFFECT	0.5527	-	-	-	-	0.0073	0.0116	-
SOURCED FBSIGN AN JG SCF JOBRELAT	0.5470	-	-	-	0.0009	-	-	-
SOURCED FBSIGN AN JG SCF AFFECT	0.5011	-	-	-	0.0119	-	-	0.0199
SOURCED FBSIGN AN JG JOBRELAT AFFECT	0.5591	-	-	-	0.0010	-	0.0078	-
SOURCED FBSIGN AN SCF JOBRELAT AFFECT	0.5628	-	-	-	0.0015	0.0041	-	-
SOURCED FBSIGN WG JG SCF JOBRELAT	0.5418	-	-	0.0061	-	-	-	0.0257
SOURCED FBSIGN WG JG SCF AFFECT	0.5107	-	-	0.0024	-	-	-	-
SOURCED FBSIGN WG JG JOBRELAT AFFECT	0.5561	-	-	0.0040	-	-	0.0114	-
SOURCED FBSIGN WG SCF JOBRELAT AFFECT	0.5643	-	-	0.0000	-	0.0032	-	-
SOURCED FBSIGN JG SCF JOBRELAT AFFECT	0.5660	-	-	0.0008	0.0015	-	-	-
SOURCED AN WG JG SCF JOBRELAT	0.5251	-	0.0228	-	-	-	-	0.0216
SOURCED AN WG JG SCF AFFECT	0.4995	-	0.0135	-	-	-	-	-

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4. Dominance Analysis of Eight Predictors of Feedback Acceptance (continued)

Variable(s)	R ²	Contribution of (Semi-Partial)						
		SOURCED	FBSIGN	AN	WG	JG	SCF	JOBRELAT
SOURCED AN WG JG JOBRELAT AFFECT	0.5094	-	0.0507	-	-	-	0.0373	-
SOURCED AN WG SCF JOBRELAT AFFECT	0.5296	-	0.0347	-	-	0.0171	-	-
SOURCED AN JG SCF JOBRELAT AFFECT	0.5388	-	0.0281	-	0.0079	-	-	-
SOURCED WG JG SCF JOBRELAT AFFECT	0.5465	-	0.0210	0.0002	-	-	-	-
FBSIGN AN WG JG SCF JOBRELAT	0.5072	0.0407	-	-	-	-	-	0.0434
FBSIGN AN WG JG SCF AFFECT	0.4739	0.0391	-	-	-	-	-	-
FBSIGN AN WG JG JOBRELAT AFFECT	0.5308	0.0292	-	-	-	-	0.0198	-
FBSIGN AN WG SCF JOBRELAT AFFECT	0.5502	0.0141	-	-	0.0004	-	-	-
FBSIGN AN JG SCF JOBRELAT AFFECT	0.5484	0.0184	-	-	-	-	-	-
FBSIGN WG JG SCF JOBRELAT AFFECT	0.5506	0.0169	-	0.0000	-	-	-	-
AN WG JG SCF JOBRELAT AFFECT	0.5263	0.0204	0.0243	-	-	-	-	-
SOURCED FBSIGN AN WG JG SCF JOBRELAT	0.5479	-	-	-	-	-	-	0.0210
SOURCED FBSIGN AN WG JG SCF AFFECT	0.5130	-	-	-	-	-	-	-
SOURCED FBSIGN AN WG JG JOBRELAT AFFECT	0.5600	-	-	-	-	-	0.0088	-
SOURCED FBSIGN AN WG SCF JOBRELAT AFFECT	0.5643	-	-	-	-	0.0045	-	-
SOURCED FBSIGN AN JG SCF JOBRELAT AFFECT	0.5669	-	-	-	0.0020	-	-	-
SOURCED FBSIGN WG JG SCF JOBRELAT AFFECT	0.5675	-	-	0.0014	-	-	-	-
SOURCED AN WG JG SCF JOBRELAT AFFECT	0.5467	-	0.0222	-	-	-	-	-
FBSIGN AN WG JG SCF JOBRELAT AFFECT	0.5506	0.0183	-	-	-	-	-	-
Zero-Order Correlation	0.5688	0.4812	0.4811	0.2610	0.2699	0.4250	0.4379	0.4951
Mean Squared Semipartial Correlation		0.0706	0.0653	0.0092	0.0132	0.0375	0.0491	0.0878
Importance (Cx _i)		0.0874	0.0843	0.0169	0.0204	0.0544	0.0650	0.1020
Relative Importance (%)		15.36	14.83	2.96	3.59	9.57	11.42	17.94

Note. SOURCED = Source Expertise/Credibility; FBSIGN = Feedback Favorability; AN = Analysis/Problem-Solving; WG = Critical Thinking; JG = Judgment; SCF = Self-Confidence; JOBRELAT = Job-Relatedness; AFFECT = Affect/Liking.

Table 4 also presents the calculations for dominance analysis of the eight predictors of feedback acceptance.

The first column in Table 4 lists the variables in each submodel, and the second column describes the fit (i.e., squared multiple correlation) of that model. The next eight columns (one for each predictor) describe the increase in the model's fit as a result of the addition of that particular variable. In other words, the estimates in these eight columns represent squared semipartial correlation coefficients. For example, the first row in Table 4 describes the increase in goodness of fit of the null model associated with the addition of each variable, and the second row describes the degree to which a model consisting of source expertise/credibility is improved by adding to it one of seven other predictors. Thus, dominance (relative importance) is determined by comparing each pair of columns (predictors) across all rows (submodels) for which both have non-empty entries. By definition, pure dominance is only achieved when one variable is more useful than another variable in all models (i.e., its predictive ability exceeds the others' across all subset regressions).

Both qualitative and quantitative measures of importance were examined. The qualitative notion of dominance relies on the usefulness of the predictors across all subsets (Budescu, 1993). To facilitate interpretation of this analysis, a summary of the dominance relationships is presented in Table 5. The first column in Table 5 identifies the target variable of interest, and the next eight columns (one for each predictor) describe the proportion of relationships that the target variable contributes more to the prediction of feedback acceptance than its competitors. For instance, the first row in Table 5 indicates that source expertise credibility was about as equally as important as feedback favorability in predicting feedback acceptance (e.g., it was only more useful in .52 or 52% of the paired comparisons). On the other hand, in majority of cases it was more important than analysis/problem-solving (e.g., it was more useful in 94% of the

Table 5. Proportion of Relationships Where Predictors Dominated Their Competitors

Dominant Predictor	Subordinate Predictor							
	1	2	3	4	5	6	7	8
1. Source Expertise/Credibility	•	.52	.94	.95	.81	.75	.11	.22
2. Feedback Favorability	.48	•	.98	.91	.80	.83	.14	.42
3. Analysis/Problem-Solving	.06	.02	•	.34	.03	.03	0	0
4. Critical Thinking	.05	.09	.66	•	.16	.06	0	0
5. Judgment	.19	.20	.97	.84	•	.31	.14	.20
6. Self-Confidence	.25	.17	.97	.94	.69	•	.16	.25
7. Job-Relatedness	.89	.86	1	1	.86	.84	•	.97
8. Affect/Liking	.78	.58	1	1	.80	.75	.03	•

Note. Matrix values represent the proportion of cases where a predictor (row value) dominates another predictor (column value) across all subset regressions. For example, when Source Expertise/Credibility is compared against Feedback Favorability across all subsets, the former predictor dominates .52 of the pairwise relationships (or 52% of the time). On the other hand, when Source Expertise/Credibility is compared to the Analysis/Problem Solving variable, its predictive ability exceeds the Analysis variable in 94% of the subset regressions. Values of 1 denote pure dominance, while values less than 1 denote relative dominance.

paired comparisons). Overall, the data in Table 5 suggest that there were only a few instances of dominance. Specifically, both perceived job-relatedness and general affect/liking dominated both of the cognitive ability-related measures (analysis/problem-solving, critical thinking). Despite the fact that no one variable dominated all the others, some general rank orderings emerged. First, perceived job-relatedness appeared to be the most important determinant of feedback acceptance since, on average, it outperformed its competitors in 92% of the pairwise comparisons. The next most important subset of predictors included general affect/liking, feedback favorability, source expertise/credibility, self-confidence, and judgment. Since the relative contributions of these five variables vary substantially depending on which of the other subset variables they are being compared to, they could not be meaningfully ranked among one another. Finally, the data suggest that the least important determinants of feedback acceptance were critical thinking and analysis/problem-solving since, on average, they only outperformed the other variables 15% and 7% of the time, respectively. The relationships between these two variables was also indeterminate, thereby precluding a meaningful rank order between the two.

The quantitative measure of importance, defined as the weighted mean semi-partial correlation (Cx_i), provides a summary of the mean usefulness of the various predictors. These data, which are presented in the second to last row of Table 4, are consistent with the qualitative results. For example, perceived job-relatedness contributed the most unique variance ($sr^2 = .14$), while critical thinking and analysis/problem-solving contributed the least unique variance (sr^2 's = .02 and .02, respectively). The values of the remaining five variables were nearly equal in size. Overall, the set of predictors accounted for nearly 57% of the variance in feedback acceptance ratings. Of the total variance accounted for, approximately 24% was attributed to perceived job-relatedness, 18% to general affect/liking, 15% to feedback

favorability, 15% to source expertise/credibility, 11% to self-confidence, 10% to judgment, 4% to critical thinking, and the remaining 3% to analysis/problem-solving.

CHAPTER V

DISCUSSION

While the performance appraisal literature has examined some of the factors related to feedback acceptance, little attention has been paid to this topic in the assessment center domain. This is particularly troublesome given the rising popularity of developmental assessment centers. Therefore, the first objective of this study was to better understand those feedback source, message, recipient, and contextual factors that make feedback more acceptable to developmental assessment center participants. Several hypotheses based on past performance appraisal and assessment center research were proposed and tested. The findings, together with past research, highlight the importance of considering a variety of feedback characteristics when investigating participants reactions to developmental assessment center feedback. The second objective of this study was to extend the feedback research by determining which of these factors were the most important determinants of feedback acceptance. Because little research to date has directly addressed this issue, no specific hypotheses were offered. Thus, this part of the study was exploratory in nature. It also differed statistically from past research in that dominance analysis was used as opposed to simple correlations or multiple regression analysis.

This chapter begins with a review of the results regarding factors related to acceptance of developmental assessment center feedback. This is followed by a discussion of the relative importance of these factors in predicting feedback acceptance. In both of the aforementioned sections theoretical implications of this research are addressed. Practical implications of this study are then discussed. Finally, limitations and future directions for research are addressed.

Factors Related to Acceptance of Developmental Assessment Center Feedback

A review of the literature revealed that this study represents the first attempt to simultaneously examine the influence of feedback source, message, recipient, and context characteristics on acceptance of feedback. Figure 3 represents a revised heuristic model of those factors found to influence acceptance of developmental assessment center feedback. As can be seen, many of the proposed relationships were supported. Rather than discussing each of the hypotheses individually, the results are grouped by each of the key factors that are believed to influence individuals' reactions to their feedback.

Feedback Source Characteristics

Results of the study clearly suggested that feedback is more readily accepted when assessors are perceived as well-trained experts in the area of testing and assessment. This is consistent with past performance appraisal (Albright & Levy, 1995; Halperin et al., 1976; Ilgen et al., 1979; Stone et al. 1984) and assessment center research (Burd & Ryan, 1993; Fleenor, 1988).

Feedback Message Characteristics

The results suggest that participants who receive favorable performance feedback will be more likely to perceive their feedback as accurate. This was not surprising given the preponderance of research which supports this notion (e.g., Baisden & Roberson, 1993; Bannister, 1986; Burd & Ryan, 1993; Dipboye & dePontbriand 1981; Fecteau, 1996; Fedor et al., 1989; Halperin et al., 1976; Ilgen et al., 1979; Jacobs et al., 1973; Jones & Whitmore, 1995; Mosher, 1965; Stone & Stone, 1985; Synder & Newburg, 1981). On the other hand, the results contradict Fleenor's (1993) findings that individuals' overall assessment center performance had no influence on acceptance of feedback (Fleenor, 1988).

Feedback Recipient Characteristics

Consistent with propositions set forth by Ilgen et al. (1979), the results

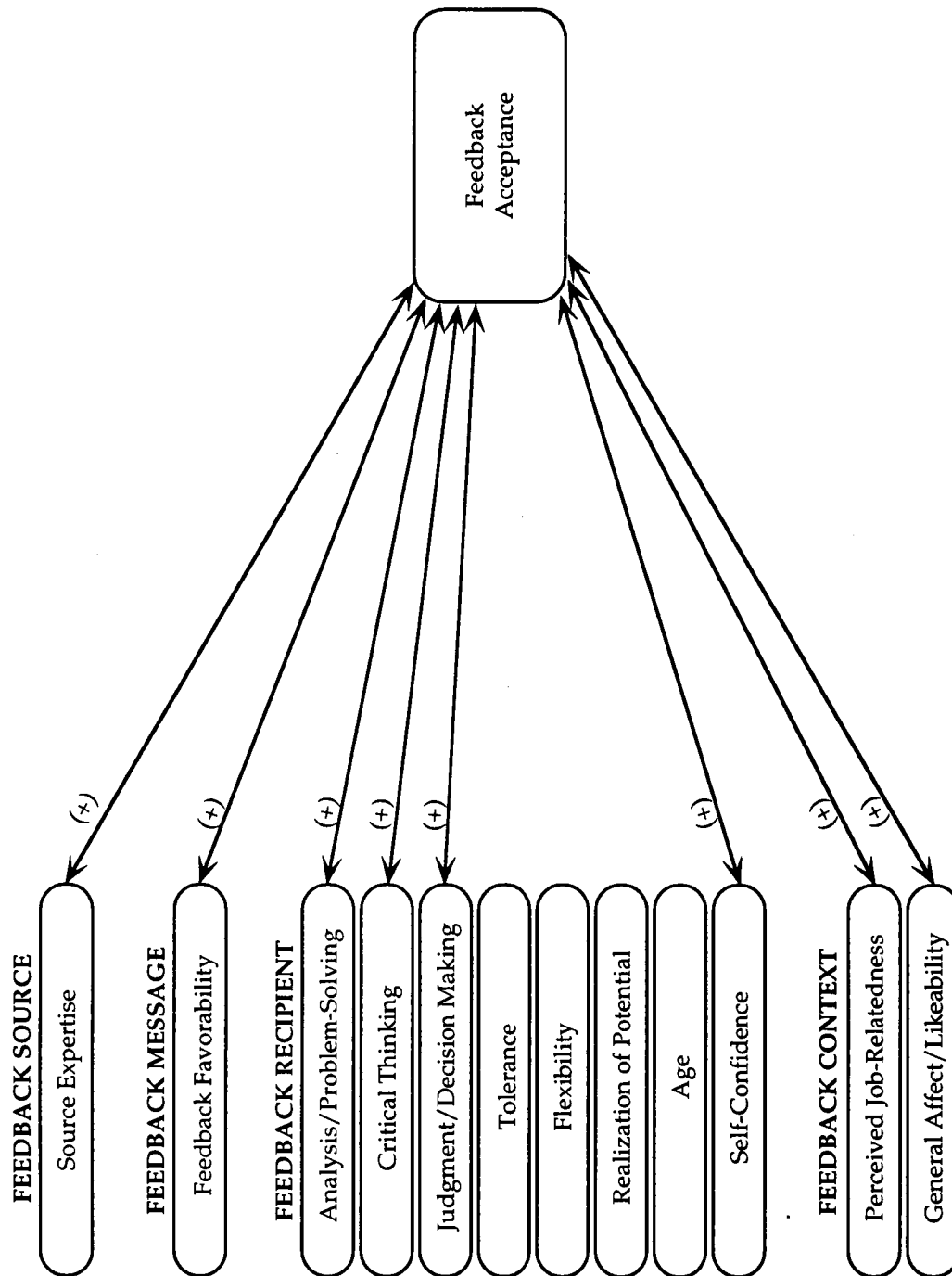


Figure 3. Revised Heuristic Model of Factors Related to Feedback Acceptance. The "+" signs in parentheses denote the direction of the relationship.

demonstrated that there are some individual difference factors which influence whether or not individuals are accepting of their feedback. However, the results revealed that there were some also some individual difference variables that were unrelated to feedback acceptance. The specific findings are discussed below.

Skills and Abilities. All the of the expected relationships between recipients' skills and abilities (as measured by the assessment center exercises and the cognitive ability measure) and feedback acceptance were supported. The results revealed that participants who had better problem-solving, critical thinking, and decision making skill were more apt to perceive their assessment center feedback as accurate. These findings lend further support to past assessment center (Baisden & Roberson, 1993; Whitmore & Jones, 1995) and feedback seeking (Fletcher, 1991b) research. One possible explanation for these findings can be found through a review of the zero-order correlations in Table 3. Specifically, participants' analysis/problem-solving, critical thinking, and judgment/decision making skills were positively correlated with perceptions of job-relatedness of the assessment center (r 's = .31, .35, .37, respectively). These results indicate that those individuals who had better intellectual capabilities were more likely to perceive the assessment center exercises as valid. In turn, these individuals may have had a better appreciation for the value and usefulness of feedback derived from such processes. The correlations between cognitive ability and perceptions of job-relatedness are also consistent with past research examining applicant reactions to selection procedures (Smither et al., 1993), and appear to extend this phenomena to the developmental domain.

The results also showed that individuals with higher self-confidence were more accepting of their feedback. While this appears to the first of such findings in the assessment center literature, it is consistent with some of the feedback seeking research (Ashford, 1986; Morrison, 1993). There are several plausible explanations for this

finding such as the belief that individuals with high, stable self-images may eagerly seek feedback, or that less confident individuals become defensive or threatened by evaluative feedback (Ashford, 1986; Boyatzis, 1982; Singer, 1966). However, the results suggest that this may have been a function of the fact that confident, self-assured individuals tended to outperform their less confident counterparts in the assessment center. That is, the strong correlation obtained between self-confidence and feedback favorability ($r = .63$), indicated that confident individuals were more likely to receive favorable performance profiles.

Considered together, the positive relationships between recipients' skills and abilities and feedback acceptance lend additional support to the adage that "rich get richer." Those who perform best appear to be most open to their feedback, and to the extent they act upon their developmental recommendations, they should be able to further enhance their skill repertoire.

Personality Styles/Preferences. Although they made intuitive sense, none of the results supported the hypothesized relationships between recipients' personality styles/preferences (e.g., tolerance of others, flexibility, and realization of potential) and their acceptance of feedback. This suggests that these factors were not important in understanding participants' receptivity to feedback. These results are in stark contrast to the robust correlations obtained by Baisden & Roberson (1993). They are also inconsistent with Fletcher's (1991b) findings regarding feedback seekers. Because of the limited amount of past research in this area, these issues deserve further attention.

Age. A review of the assessment center literature showed no instance where the relationship between participants' age and acceptance of feedback had ever been tested. Thus, this study represents the first attempt to explore this issue. The results failed to support the hypothesized negative relationship between age and receptivity to feedback. While the obtained correlation was in the expected direction, it was not significant. As

opposed to past performance appraisal research (Ilgen et al., 1979), this suggests that individuals' age does not play a role in whether or not they perceive their feedback as accurate. Further, in terms of feedback seeking research, the results do not appear to lend support to assertions that older workers Fletcher's (1991b) contention that older workers may be more receptive to feedback opportunities. The discrepancy between this finding and other performance appraisal research may be due to fact that participants' actual age was used as the predictor as opposed to age-related variables such as organization or job tenure (e.g., Ashford, 1986; McEvoy & Buller, 1987).

Feedback Context Characteristics

Overall, the results point out that contextual factors play an important role in determining whether individuals perceive their assessment center feedback as accurate. Two contextual factors were examined in this study – the extent to which the assessment center appeared job-related, and the individuals' affect toward the assessment process.

Perceived Job-Relatedness. Individuals' perceptions of the job-relatedness of the assessment center had the strongest correlation with feedback acceptance ($r = .60$). This provides clear support for Goodge's (1995) assertion that exercise realism plays a key role in the perceived accuracy of developmental assessment center feedback. Taken a step further, these findings suggest that while generic, off-the-shelf exercises may be designed to measure requisite skill dimensions, the absence of a visible relationship with those activities required on the job may make individuals more suspect, and thus less accepting of their feedback. Future research may want to explore how much fidelity is sufficient for ensuring participants' buy-in. Moreover, the positive correlations between job-relatedness, feedback acceptance, and feedback favorability provides some empirical support for the notion that low-scorers may attribute poor performance to the use of "canned" or "non-real world" assessment center exercises (Teel & DuBois, 1983).

Some of the relationships between job-relatedness and other predictors deserve mention. For instance, the positive correlation between job-relatedness and general affect/liking is consistent with research which shows that perceived validity is related to the usefulness of and overall affect towards assessment devices (Dodd, 1977; Kudisch et al., 1994; Rotolo & Kudisch, 1996; Smither et al., 1993). Moreover, the positive correlations between job-relatedness, source expertise/credibility, and feedback acceptance provide empirical support for Schuler's (1993) assertions that the "transparency" of an assessment device will influence the extent to which the device is seen as socially acceptable. Transparency is defined as the extent to which participants can clearly see or deduce the objectives of various facets of an assessment process, including: the situation (e.g., the acting persons, their roles, intentions, and competencies), the organizational importance and task relevance of diagnostic instruments, and the evaluation process (e.g., what is measured, how judgments are made).

General Affect/Liking. As expected, the results also showed that individuals who liked the assessment center process tended to be most accepting of the feedback. This was not surprising in the sense that, logically, a person would have no reason for attending a similar assessment process in the future if they did not find the feedback useful the first time around. In fact, personal observations from one-on-one feedback sessions revealed that those individuals who inquired about future opportunities for reassessment as a means for evaluating behavior change tended to be the same individuals who admitted they enjoyed the experience and were impressed by the accuracy of the assessment process.

Determining the Relative Importance of Predictors of Feedback Acceptance

Despite the fact that correlates of feedback acceptance have been studied for nearly two decades, there have been relatively few attempts to empirically investigate

which factors are most important determinants of feedback acceptance. Rather, there appears to be an accepted belief among researchers that source credibility is the most important influence on the extent to which recipients accept feedback (Ilgen et al., 1979; Fletcher, 1991a). It is also difficult to interpret past research findings which have attempted to address this issue because of the limitations associated with zero-order correlations and multiple regression analysis, the statistical procedures most often employed by researchers in this area. Through the use of dominance analysis, this study provides much needed insight into the issue of the relative importance of predictors.

Overall, the eight predictors accounted for nearly 60% of the variance in acceptance ratings. In the purest sense, no one variable dominated all other variables. On the other hand, the results do suggest that some variables are more useful than others in determining feedback acceptance. The best predictor of individuals' willingness to accept their feedback was their perceptions regarding the job-relatedness of the assessment center. While the job-relatedness predictor did not absolutely dominate its competitors, it came very close in that it (a) on average, outperformed its competitors in 92% of the pairwise comparisons, and (b) dominated the next most importance predictor (general affect/liking) 97% of the time. The fact that it failed to dominate the other variables in so few instances may have simply been due to sampling error. Lastly, this variable alone explained almost one-fourth of the variance in feedback acceptance ratings. Although these findings challenge the assumption that source credibility (Ilgen et al., 1979; Fletcher, 1991a) or self-esteem (Sweeney & Wells, 1990) are the most important influences, it provides clear support for Goodge's (1995) assertion that exercise realism has the strongest impact on perceived accuracy of developmental assessment center feedback. It is also consistent with other findings which suggest that source credibility is not always the greatest influence on feedback reactions (Albright & Levy, 1995). In sum, even though participants may perceive assessors as expert raters,

if they view the exercises as poor reflections of work activities, the results suggest that they will still be somewhat skeptical of their feedback.

Relatively speaking, the next most important predictors included general affect/liking, feedback favorability, source expertise/credibility, self-confidence, and judgment. The dominance relationships between these variables were indeterminate. For example, the results indicated that source expertise/credibility was a better predictor than self-confidence in 75% of the pairwise comparisons (e.g., source expertise was better than self-confidence alone and in the presence of feedback favorability). However, self-confidence was more useful than source expertise/credibility in the remaining pairwise comparisons (e.g., self-confidence was better than source expertise in the presence of job-relatedness, and in the presence of affect). Because a rank order between these variables could not be established unequivocally, these predictors were considered to be as important as one another. On average, they each uniquely explained about 7.8% of the variance in acceptance, and as a whole, they accounted for approximately 69% of the total variance accounted for by the entire set of eight predictors. Taken together, the results again indicate that from a theoretical perspective, source expertise/credibility is not always the most important factor affecting feedback acceptance.

The dominance analysis results showed that the two cognitive ability measures (analysis/problem-solving, critical thinking) were the least useful contributors in the prediction of feedback acceptance. When considered with the other six predictors, these variables only explained 3 and 4% of the total variance accounted for by the model. They were also the only two predictors that were actually dominated by other predictors.

Finally, an inspection of the overall dominance analysis findings reveals a rather interesting trend. Forty-one percent of the variance in feedback acceptance was

explained by situational factors (characteristics of the feedback source, message, and context). On the other hand, individual differences accounted for only 16% of the variance. This outcome may offer some support for the notion of "situational specificity." That is, the results are consistent with long standing beliefs that the major source of variation in behavior resides in the situation (c.f., Hunt, 1965; James, Demaree, & Mulaik, 1986). On the other hand, because many of these variables are based on participants' "perceptions" of the context, they could be considered individual difference factors. Viewed in this manner, the former interpretation may be tenuous or inappropriate.

Practical Implications

A number of guidelines and concerns for practitioners can be drawn from the results of this study. One of the more obvious implications is the various strategies that can be employed to proactively increase the probability that feedback will be viewed as accurate by assessment center participants. First and foremost, the findings imply that great care should be taken to ensure that exercises are designed to resemble those tasks and activities that are encountered on the job. Thus, in most cases, the use of a one-on-one employee counseling exercise should probably result in greater feedback acceptance than the use of a desert survival-type simulation since the former is more face valid (unless of course the target population being assessed includes military personnel). The results also suggest that information regarding assessors' technical qualifications (e.g., professional training, experience) be communicated to participants at the outset of the process as a way of potentially enhancing perceptions of source expertise. Nevertheless, the results indicate that merely employing such strategies may sometimes be insufficient to motivate feedback acceptance given the other factors which practitioners have no control over (e.g., recipient characteristics).

A more alarming implication of this study is that those participants who need

feedback the most may appear to be least receptive to it. That is, the results revealed that individuals who performed less well in the assessment center were more likely to view the feedback as inaccurate. This is especially problematic since it is believed that acceptance is a necessary precursor to behavior change (Ilgen et al., 1979). This poses a great challenge for assessment center administrators, assessors who deliver face-to-face feedback, as well as those organizations who sponsor such developmental activities. In addition to employing the strategies noted previously, practitioners may be able to reduce the likelihood that recipients will deny negative feedback if such feedback is accompanied by specific behavioral examples. For instance, Ilgen et al. (1979) note that because specific feedback tends to leave less room for distortion, it may be harder to deny.

At the very least, the results of this study provide practitioners with a preliminary skill profile of those individuals who are less accepting of their feedback (e.g., low judgment, low self-confidence, and to a lesser extent low analysis and critical thinking). By comparing participants' performance against this profile, assessors may have some success predicting potential skeptics before actual face-to-face feedback sessions are conducted.

Finally, the results regarding participants' level of self-confidence pose another problem for practitioners – how to provide feedback in such a manner that it is not further damaging to participants' self-images. The difficulty here lies in the belief that individuals with low self-confidence tend to have strong feelings of insecurity, are emotionally distressed and anxious (McAllister, 1988), and they are likely to become more defensive and uncomfortable when presented with negative feedback (Boyatzis, 1982). To make matters worse, research examining self-esteem and evaluative feedback suggests that low self esteem individuals show significant decreases in performance following negative feedback (Shrauger & Rosenberg, 1970). Again, the findings from this

study suggest this issue may be easier to deal with to the extent that individuals perceive exercises as realistic and assessors who provide feedback as experts. This may also be a situation where factors such as the care and concern shown by assessors (Fleenor, 1988) play a key role in feedback acceptance.

Study Limitations

There are several limitations associated with this study which deserve mention. The majority of these limitations are a function of the archival nature of the study. While the use of off-the-shelf data may sometimes pose less than ideal research opportunities, it is important to point out that much of the research conducted in assessment center contexts is archival in nature. This is because assessment center researchers are confronted with the very same practical constraints that limit the use of such assessments in organizations (e.g., the time and costs associated with assessment center development and administration). Nevertheless, it is important to address these limitations.

One concern is the limited number of items that were used to measure source expertise/credibility and feedback acceptance (n items = 2 and 3, respectively). From a conceptual perspective, the author certainly agrees that multiple item scales generally do a better job of capturing the constructs of interest. However, in this case, the constructs were so simple and straightforward that the few items did not seem necessarily problematic. From an empirical perspective, it is generally assumed that compared to multiple item scales, single-item measures are often too unreliable to be useful. Yet, there are those who argue that single-items or observations can produce meaningful results and should be considered (Kenrick & Braver, 1982). These researchers contend that when trying to capture the essence of a construct, the way items are worded may be more important than the actual number of items used. Stated differently, merely asking the same thing ten times in an effort to apply classical reliability theory appears

senseless. According to Kenrick and Braver (1982), "single global ratings by judges familiar with a subject can reflect careful implicit pooling of (self or other) observations and not simply one random observational scoop out of the stream of ongoing behavior or the transient mood state" (p. 183). In the context of this study, this means that participants' ratings on the two source expertise items could be viewed as "intuitive averages" of observations made throughout the one and one-half day assessment center. In this manner these ratings would be quite reliable and sufficient. Nevertheless, future research may want to explore whether different findings emerge from the use of expanded measures.

A second concern related to the use of archival data is the manner in which feedback favorability was measured. Clearly, the author would have preferred to use a measure which captured *participants' perceptions* of the favorableness of their feedback since this would have been consistent with theory and past practice (Burd & Ryan, 1993; Ilgen et al., 1979). Because such data were not available, an objective surrogate measure based on *assessors' perceptions* was used. The problem encountered by using this approach is that it assumes that participants and assessors share a common set of performance standards (e.g., what behaviors define high, moderate, and low performance). While this assumption may hold true in some instances, it may not in others. For example, consider the case of a participant with a high need for achievement who is told during her/his feedback session that s/he performed very well in the center. Because of exceptionally high standards, she/he may only perceive her/his performance as adequate since there is still room for improvement. Thus, a perceptual discrepancy emerges between the feedback recipient and the feedback source. To the extent that such discrepancies existed between self- and assessors' perceptions, the earlier interpretations regarding feedback favorability and acceptance become less clear. Future research may want to address this issue. For example, there is some indication that

individuals tend to be more satisfied and accepting of feedback that is better than expected than feedback that is worse than expected (c.f., Albright & Levy, 1995).

On the other hand, it is worth noting that the approach used in this study was somewhat analogous to manipulations of feedback favorability in lab studies where objective measures were used as opposed to subjects' perceptions (Waldersee & Luthans, 1994; Stone & Stone, 1984, 1985). For example, in both of the Stone and Stone (1984, 1985) studies examining the effects of feedback favorability on perceived feedback accuracy, feedback agents provided subjects with information that their performance on a particular task was either acceptable (average) or superior (above average). In the current study, the criteria that were used to determine feedback favorability were the same criteria that were used during the one-on-one feedback sessions to provide participants with descriptors of their overall assessment center performance. Considered together with the fact that feedback favorability was found to be a useful predictor of acceptance, it appears that the approach used in this study had some merit.

It is also possible that some of the results may be affected by method variance. A review of the correlations in Table 3 reveals that spurious relationships may have emerged between three of the predictors (i.e., job-relatedness, affect, source expertise) and the criterion merely because these variables were measured with a common method (c.f., Campbell & Fiske, 1959). On the other hand, recent research suggests that method variance may be less of a threat than once thought (Bagossi & Yi, 1990; Spector, 1987). Nevertheless, future research should examine the influence of these predictors on feedback acceptance using data from multiple methods to see if similar trends emerge.

Another limitation of this study is the lack of control researchers have in the field. For example, the fact that participants had different motives for attending the MAP (e.g., to obtain feedback needed to enhance their promotion potential; to facilitate

outplacement activities; to merely get away from the office) could have influenced their attitudes toward the entire assessment process. Further, although this study attempted to extend performance appraisal finding regarding feedback acceptance to the assessment center domain, it was limited in that it failed to address all of the factors germane to this part of the Ilgen et al. (1979) model.

There are some final boundary conditions that limit generalizability of the results. First, the study sample consisted of government employees. Hence, additional research is needed before the findings can be extended to other populations (e.g., individuals in private industry). The second constraint condition involves the type of feedback given to assessment center participants. That is, the results represent acceptance of "verbal" feedback since recipients' reactions were solicited prior to them actually receiving their written feedback reports. Finally, as noted by Budescu (1993), establishing that a particular predictor (e.g., perceived job-relatedness) dominates another predictor (e.g., analysis/problem-solving) in a certain sample does not guarantee that the same pattern will be replicated in other samples or in the population.

Avenues for Future Research

With the above limitations and boundary conditions in mind, future research should proceed along several avenues. As with any type of research, the more novel findings of this study deserve replication and further research. Other recommendations for future research can be divided into three broad categories, including research examining: (1) other potential determinants of feedback acceptance; (2) the stability of feedback acceptance; and (2) the relationship between feedback attributes (e.g., source and recipient characteristics), feedback acceptance, and behavior change.

Other Potential Determinants of Feedback Acceptance

Feedback Source Characteristics. Drawing from the performance appraisal literature (Ilgen et al., 1979), there are other feedback source characteristics which have

not yet been examined in an assessment center context. These include perceptions of assessors' trustworthiness and power. Another area needing additional research is the extent to which participants are more accepting of their feedback when they perceive assessors (coaches) as concerned about their individual growth and development. To date, mixed evidence exists regarding the influence of this source characteristic (Fleenor, 1988; Goodge, 1995).

Feedback Message Characteristics. Despite the fact that it has long been believed that feedback specificity plays a key role in acceptance (Bernardin & Beatty, 1984; Boehm, 1985; Dodd, 1977; Ilgen et al., 1979; Latham & Wexley, 1981), only a few studies were able to be located which provided empirical support for this contention in either performance appraisal (Liden & Mitchell, 1985) or assessment center contexts (Goodge, 1995). Thus, this issue merits further attention. Future research may also want to examine what format of feedback (e.g., performance on dimensions, performance on exercises, or a combination of the two) leads to greater acceptance (Thornton, 1992; Kudisch & Ladd, 1993). There only appears to be one recent attempt to investigate this issue. Specifically, across two labs studies, Thornton, Kaman, Layer, and Larsh (1995) found that there were no differences in student reactions to attribute (dimension) and task (exercise) feedback, nor any differences in the level of subsequent learning in the two groups. However, in one of the studies, those students who received exercise feedback performed more effectively in a second assessment exercise than their counterparts who received dimension feedback. Again, additional research seems warranted. Finally, research is needed to replicate Goodge's (1995) finding that developmental assessment center feedback is more likely to be accepted when it is clearly explained.

Feedback Recipient Characteristics. The findings from this and past studies (Baisden & Roberson, 1993; Jones & Whitmore, 1995) suggest that individuals' skills and

abilities influence their receptivity toward feedback. Research may want to examine the relationship between other competencies and acceptance. For example, individuals with strong strategic planning skills are believed to see the big picture and operate from a broad, long-term perspective (Davis, Skube, Hellervik, Gebelein, & Sheard, 1992). As opposed to their narrow view counterparts, individuals with better strategic planning skills may therefore be more accepting of feedback since they can appreciate the competitive advantage created by using such diagnostic information. Moreover, because one might expect performance on this dimension to be closely related to performance on the judgment and analysis dimensions, it logically follows that one's strategic planning skills may have a similar impact on feedback acceptance.

In terms of personality, the results of this study preclude generalizations regarding the influence of various characteristics (individuals' tolerance of others, flexibility, and realization of potential) on feedback acceptance. Clearly, more research is needed. Future attempts should also examine the influence of other factors, such as those addressed in the performance appraisal literature (e.g., self-esteem, locus of control), as well as individuals' underlying motivations (e.g., need for achievement, motivation/willingness to learn, career ambition, expectancies regarding outcomes of using assessment information). For example, Jones and Whitmore (1995) found that participants' career motivation was positively related to acceptance of assessment center feedback.

Feedback Context Characteristics. Reviews of the characteristics of effective performance appraisals suggest other factors may play a role in whether individuals accept their assessment center feedback (c.f., Latham & Wexley, 1981). These include the extent to which individuals participate in one-on-one feedback sessions, and the extent to which participants have organizational support for such development activities. For example, it would be interesting to see if DeGregorio and Fisher's (1988)

findings regarding the positive effects of joint participation on acceptance extend to assessment center applications. It would also be worthwhile to examine whether support from supervisor or peers influences the degree to which developmental assessment center feedback is accepted. For instance, Fecteau's (1996) recent research demonstrated that acceptance of 360-degree feedback increased to the extent that participants perceived they had top management support ($r = .40$). Looking back on the current study, it seems logical that participants who were referred to the MAP by supervisors who (a) had attended previously and perceived the information as valuable, and (b) demonstrated an interest in their subordinates' development, would be more accepting of their feedback than participants whose supervisors merely viewed the MAP as an opportunity for their subordinates to get away from and have fun (the latter reflects actual comments found in some of the assessors' interview notes).

Unfortunately, beyond some qualitative evidence, no empirical data was available to determine why the individuals in this study volunteered to participate in the MAPs (e.g., were they encouraged by their supervisors, or were they simply told they had to attend?).

Finally, it would be interesting to examine the relationship between perceived organizational movement and feedback acceptance. This suggestion is related to feedback recipients' outcome expectancies. In settings where promotional opportunities exist, individuals may be more accepting of their feedback since they can use the information to address skill deficiencies, thereby increasing their chance of promotion potential. On the other hand, if an organization is going through downsizing efforts, participants may be more ambivalent toward their feedback since they do not see a link between behavior change and subsequent progression in the organization. This relationship is further confounded by the prospect that individuals in the latter type of organization may actually be more accepting of their feedback if they perceive they can

use the information to enhance their skills, thereby making them more marketable to other organizations. Given the current popularity of downsizing and rightsizing, this seems to be a fruitful avenue for research.

Stability of Feedback Acceptance

Longitudinal examinations of feedback acceptance are another area worthy of future pursuit. The cross-sectional nature of this study presumes that feedback acceptance is a stable trait. However, it is quite possible that recipients' receptivity will change over time. For example, personal observations suggest that there are some instances where individuals who initially appear agreeable toward the feedback during one-on-one debriefings become even more accepting of its accuracy once they have had more time to review and digest both their verbal and written feedback. Borrowing from the grievance literature, it is also possible that individuals who receive "bad news" regarding their performance feedback may go through several affective stages. Initially they may be surprised by some of the assessors' observations, especially if this is the first time they have received such feedback. Next, as a way of protecting their self-esteem, they may try to deny or rationalize the results. Qualitative evidence of this is provided by Teel and DuBois (1983) in their discussion of some of the excuses offered by poor performers (e.g., the assessors graded them unfairly; they would have performed differently "in the real world"). In the next stage recipients may shift from being defensive to being angry about the feedback. At some point, however, individuals may begin to rationally think about and carefully analyze the feedback they receive. During this time, they may seek out other credible sources to confirm or disconfirm the feedback. Over time, it is presumed that they may eventually become more accepting of their feedback. Individual difference factors (e.g., need for achievement, self-confidence, self-esteem, judgment, flexibility, etc.) and the extent to which discrepancies exist between self and assessor ratings may also play a role in the length of this evolution.

Taken together, these propositions suggest that for some individuals feedback acceptance may be dynamic in nature. One way to examine this issue would be to collect data over a couple points in time. For example, researchers may want to solicit reactions (1) immediately after verbal feedback is given, and (2) at some interval after they have had sufficient time to digest their verbal and/or written feedback and seek confirmation from other sources (e.g., four to six weeks after the time of assessment). Though plausible, reaction data collected at later points in time may be confounded by other variables (e.g., behavior change).

Feedback Acceptance and Behavior Change

A final area that warrants future research is whether the acceptability of feedback is positively related to behavior change. Some consider this to be the most important criterion since desired outcomes (e.g., improved individual and organizational performance) can only be realized to the extent that individuals act upon their feedback (Ilgen et al., 1979). To date there is mixed evidence regarding this issue. Research from both the performance appraisal (Fecteau, 1996) and assessment center literature (Fleenor, 1988; Jones & Whitmore, 1995) indicate there is no relationship between acceptance and behavior change. This suggests that even though feedback may be accepted and considered accurate, participants' affective responses do not influence the extent to which developmental recommendations from feedback sessions are acted upon. On the other hand, there are data to suggest that those individuals who view their feedback as a true reflection of their strengths and weaknesses will be more inclined to engage in follow-up, self-development activities (Goodge, 1995). Additional research is clearly needed in this area. For example, a better understanding of why an individual acts upon his or her feedback could be gained by investigating the effects of feedback source, message, recipient, and contextual characteristics on behavior change. Such investigations would be valuable since they afford additional tests of other propositions

set forth by the Ilgen et al. (1979) model.

Finally, there is mixed evidence regarding the effects of assessment center performance on subsequent performance. While some of the findings have been favorable (Barber, 1980, as cited in Thornton & Byham, 1982; Fleenor, 1988; Engelbrecht & Fischer, 1995), others have not (Jones & Whitmore, 1995). Again, more research is needed before any definite conclusions about the effectiveness of developmental assessment centers can be made.

Conclusion

Developmental applications of assessment centers represent an emerging and exciting trend for human resource practitioners interested in maximizing organizational talent (Boehm, 1985). In fact, if the trend toward developmental applications continues to grow at the current rate, than indeed, as Boehm and Hoyle (1977) point out, centers for selection purposes may become the exception rather than the rule. However, unlike their selection/promotion counterparts, little research has been conducted which evaluates assessment centers in terms of their success in developing individuals (Engelbrecht & Fischer, 1995; Jones & Whitmore, 1995; Keys & Wolfe, 1988). Specifically, few studies have examined whether feedback is (1) accepted by program participants, and (2) used to identify and engage in specific training and development activities. This study represents a response to calls for more systematic research in this area. By building on research from both the performance appraisal and assessment center domains, it contributes to our understanding of those factors that influence feedback acceptance and their relative importance. Until issues like this and the subsequent relationship to behavior change are more fully explored, it seems premature to conclude that the effectiveness of developmental assessment centers is limited (Jones & Whitmore, 1995).

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APPENDICES

A. POWER ANALYSIS COMPUTATIONS

POWER ANALYSIS

The following formulas are based on Cohen and Cohen's (1983) power analysis for sets of independent variables.

- Estimating power as a function of n : $L^* = f^2 (n - k - 1)$ (Equation 4.5.7)

where:

- f^2 = the expected population "effect size" (ES); Cohen and Cohen suggest $f^2 = .15$ may be appropriately thought of as a "medium" effect size in the context of 5 or 10 independent variables in a set (p. 161).
 - For R^2 , substitute f^2 into the equation $R^2 / (1 - R^2)$ to find L^* (p. 164)
- n = sample size = 107
- k = number of independent variables = 12
- Significance criterion to be used, $\alpha = .05$
- Therefore: $L^* = (.15 / .85)(107 - 12 - 1) = 16.59$
- Entering table E.2 (L values for $\alpha = .05$) at row $k_B = 12$, L^* falls between 15.74 for power = .75 and 17.34 for power = .80.
- Thus, using the current sample, there would be between a 75 – 80% probability of detecting a medium effect size ($f^2 = .15$). According to Cohen and Cohen (1983), a convention for desired power for the F test = .80.

B. SURVEY MEASURES

Note. All items were rated on a 5-point Likert-type scale (1 = "Strongly Disagree" to 5 = "Strongly Agree").

Source Credibility/Expertise

- I have confidence that the people who assessed my performance are thoroughly trained raters.
- I believe the individuals who assessed my performance are very competent in the field of testing and assessment.

General Affect/Likeability

- I enjoyed this assessment device to a great degree.
- I would look forward to completing this same assessment device again in the future.
- I am glad I had the opportunity to attend the assessment center.

Perceived Job-Relatedness

- I could clearly see the relationship between this tool and what is required on the job.
- The actual content of this assessment tool was clearly related to management jobs.
- I am confident that this tool can predict how well a person will perform on the job.
- Participants who perform well on this assessment device are more likely to perform well in jobs than participants who perform poorly on this device.

Perceived Feedback Accuracy

- This instrument accurately identified my managerial skills, abilities, and/or style.
- The observations of my performance/personality on this instrument were accurate.
- Observations of my performance in the assessment center were consistent with feedback I have received in the past.

VITA

Jeffrey Darren Kudisch was born in Hackensack, New Jersey, on August 14, 1964. He attended schools in the public system of Pine Brook, New Jersey, and later in Plantation, Florida, the Broward County Public School System, where he eventually graduated from South Plantation High School in May, 1982. He entered The University of Florida, Gainesville, during August of 1982, and received his Bachelor of Science in Psychology in December of 1986. He returned to The University of Florida in January of 1987 to pursue post-baccalaureate studies, after which time he entered the Master's program in Industrial/Organizational (I/O) Psychology at The University of Central Florida, Orlando, in August of 1987. Immediately after receiving his Master's degree in August of 1989, he entered the Doctoral program in I/O Psychology at The University of Tennessee, Knoxville. He officially received his Doctoral degree in December, 1996.

Since 1988, Jeffrey has provided consulting services in the areas of assessment centers, testing and selection, training and development, performance management (e.g., performance appraisal, multi-source feedback), and organizational change and development to both public- and private-sector organizations. He is presently employed as an Assistant Professor of I/O Psychology at The University of Southern Mississippi, Hattiesburg.