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Performance Ratings: An Investigation of Reliability, Accuracy, and Relationships Between Individual Differences and Rater Error

LEVEL II

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Walter C. Borman, Leaetta M. Hough, and Marvin D. Dunnette
PERSONNEL DECISIONS, INC.
821 Marquette Avenue
Minneapolis, Minnesota 55402

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M. A. Fischl, Work Unit Leader
Personnel Accession & Utilization Technical Area, ARI

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U.S. ARMY RESEARCH INSTITUTE
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The research reported here studied performance ratings within a person perception framework. The research program sought to (1) discover the consistency (reliability) with which individual raters make accurate and error-free evaluations of performance effectiveness; (2) identify individual differences correlates of performance rating accuracy and of the ability to avoid halo, leniency and restriction of range rating errors; and (3) explore relationships between the number of raters providing performance evaluations

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20. ABSTRACT (continued)

of a ratee and these raters' interrater agreement and accuracy of judgment.

As a first step, behaviorally anchored performance rating scales were developed for two jobs, campus recruiter for a business concern and manager in an office setting. These scales formed the basis for writing scripts which actors used later to role play 16 different performances on these two jobs. The scripts were written to reflect realistic performance levels on the various behavioral performance dimensions. Performers acted out the scripts, and the 5-7 minute performances were videotaped.

Criterion "true scores" for these performers were then estimated by 14 expert judges who studied the tapes carefully and used the performance rating scales to make their evaluations. Agreement with the preset performance levels, reliability, and convergent and discriminant validity of the expert ratings were all very high, suggesting that the mean expert judgments could justifiably be used as criterion scores defining exactly the level of competence portrayed in each videotaped scene.

Next, 258 student subjects completed the Minnesota Person Perception Battery (MPPB), a series of items and scales measuring personality, interest, and background variables. From this group a carefully stratified subsample of 146 subjects was presented the videotapes and made ratings of the recruiters' and managers' effectiveness on the behavioral performance dimensions.

Analysis of the student subjects' ratings showed that accuracy, halo, leniency, and restriction of range were consistent within situation or job. For example, subjects who were accurate in rating performance on some dimensions of the recruiter job tended to be accurate on the other dimensions of that job. Consistency across situation or job was lower for accuracy, leniency, and restriction of range. The researchers judged the consistency for accuracy, restriction of range, and halo as high enough to seek individual-differences correlates of these three rating behaviors.

Results of correlational analysis relating MPPB variates with accuracy and the two rating types of error showed that the individual differences variables that were measured accounted for approximately 16% of the variance in accuracy scores and about 7% in restriction-of-range scores. The largest correlates of accuracy (all positive) were verbal reasoning ability, personal adjustment, and detail orientation.

A Monte Carlo study indicated that pooling ratings (across individual raters) does increase the accuracy of the ratings, though at a decelerating rate as the number of raters increases. Likewise, another Monte Carlo study indicated that to some extent high interrater reliability of a set of ratings does imply high accuracy of those ratings.

The authors enthusiastically recommend using the technique of carefully prepared stimulus materials (videotapes) to investigate performance ratings. The use of videotaped performances with known performance "true scores" appears promising for studying performance ratings within a controlled setting.

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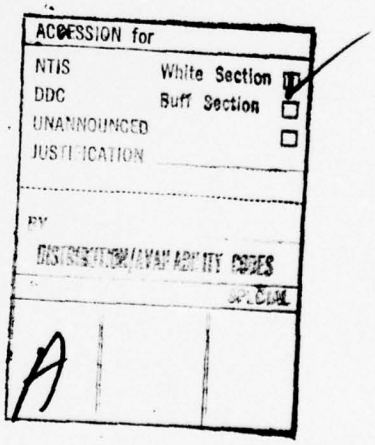


TABLE OF CONTENTS

Page

Chapter 1. Summary of Research 1

Chapter 2. Literature Review 5

2.1 The Study of Interpersonal Perception 5

2.2 Individual Differences and the Accuracy of Interpersonal Perception: Pre-1955 12

2.2.1 Age 13

2.2.2 Sex 13

2.2.3 Intelligence and perception 13

2.2.4 Training in psychology 13

2.2.5 Esthetic ability and sensitivity 13

2.2.6 Emotional stability 13

2.2.7 Social skills 13

2.2.8 Attitude toward social relations 13

2.3 Individual Differences and the Accuracy of Interpersonal Perception: Post-1955 14

2.3.1 Studies using "D" measures of accuracy to assess relationships between individual differences and accuracy 14

2.3.2 Other post-1955 studies employing "impure" accuracy measures to assess relationships between individual differences and accuracy 16

Chapter 3. Method 18

3.1 Selecting the Jobs and Developing Behavior Rating Scales 18

3.2 Generating Intended "True Scores" for Performers 21

78 11 03 062

Page

3.3 Developing and Videotaping the Performances 23

3.4 Criterion Analyses 27

3.4.1 Gathering performance ratings from expert judges 27

3.4.2 Interjudge reliability analyses 29

3.4.3 Analysis of variance assessment of the expert ratings' validity 29

3.4.4 Correlating expert ratings with intended true scores 31

3.5 Developing the Minnesota Person Perception Battery (MPPB). 36

3.5.1 Janz Perception Inventory 36

3.5.2 Revised Kelly Repertory Grid 37

3.5.3 Biographical & Preference Inventory 38

3.6 Description of the Student Sample and Procedures 38

3.7 Developing Predictor Composites from Responses to the MPPB 40

Chapter 4. Results 45

4.1 Investigating Rating Accuracy and Three Rating Errors . . 45

4.1.1 Computing indices for rating errors 45

4.1.2 Evaluating the reliability of rating accuracy and the three rating errors 46

Accuracy 49

Rating errors 51

4.2 "Predicting" Accuracy and Rating Errors from MPPB responses 52

4.2.1 Relationships between MPPB composites and criteria 52

Page

4.2.2 Investigating individual MPPB items and scale correlates of rating accuracy and rating errors: An exploratory study 61

Accuracy 68

Halo 68

Restriction of range 71

4.3 Results of the Questionnaire Measuring Subjects' "States" During Rating Sessions 73

4.4 Monte Carlo Studies Investigating Some Interrelationships Among (a) Number of Raters, (b) Interrater Agreement, and (c) Accuracy and Rating Errors 74

4.4.1 Monte Carlo Study I 74

4.4.2 Monte Carlo Study II 77

Chapter 5. Summary 79

References 83

TABLES

Number		Page
1	Interrater Agreement on Rank Order of Behavior Examples Effectiveness Levels Within Each Dimension	22
2	Target Covariance Structure and The Structure Obtained Using Intended True Scores--Manager and Recruiter Jobs	24 & 25
3	Intended Performance True Scores for Ratees in the Recruiter and Manager Jobs	26
4	Interrater Agreement Among Expert Judges for Recruiter and Manager Ratings	30
5	Analysis of Variance Results for Recruiter and Manager Ratings	32 & 33
6	Variance Component Indices for Five Studies	34
7	"Validity" Correlations Between Experts' Ratings and Intended True Scores	35
8	Varimax Rotated Factor Solution for the 21 Adjective Check List Scales	42
9	Varimax Rotated Factor Solution for 57 Selected MPPB Variables	43
10	Within- and Across-Job Means, Standard Deviations and Reliability Coefficients for Accuracy and Three Rating Errors	48
11	Multiple Regression Results: Regressing MPPB Variates on Accuracy	54 & 55
12	Multiple Regression Results: Regressing MPPB Variates on Halo	56 & 57
13	Multiple Regression Results: Regressing MPPB Variates on Restriction of Range	58 & 59

Number Page

14 T-Scores on MPPB Variates for Groups with High, Medium, and Low Halo Scores
Recruiter Job 62
Manager Job 63
Both Jobs Together 64

15 T-Scores on MPPB Variates for Groups with High, Medium, and Low Restriction of Range Scores
Recruiter Job 65
Manager Job 66
Both Jobs Together 67

16 Individual Item/Scale Correlates of Accuracy 69

17 Individual Item/Scale Correlates of Halo 70

18 Individual Item/Scale Correlates of Restriction of Range . . . 72

19 Monte Carlo Study I: Means and Standard Deviations of Accuracy and Rating Error Scores Computed for Groups of 2 - 30 Raters 75

20 Monte Carlo Study II: Interrater Reliability--Accuracy Correlations Computed for Groups of 2 - 30 Raters 78

FIGURES

1 Examples of the Contexts in Which Persons Might Perceive and Make Judgments about Others 8

2 Studio Layout for the Videotaping Sessions 28

APPENDIXES

1 *Recruiter and Manager Performance Rating Scales* 89

2 Final Scripts for Recruiter and Manager Actors 109

3 List of Variables for the Minnesota Person Perception Battery 181

4 Procedures for Selecting Subjects to View the Videotapes . . .187

5 Formal Methematical Definitions of Accuracy, Halo, Restriction of Range and Leniency. 191

CHAPTER 1

SUMMARY OF RESEARCH

This report describes a two-year research effort designed to better understand the performance rating process. The research program sought to: a) discover the consistency (reliability) of individual rater's performance in making accurate, error-free evaluations of performance effectiveness; b) identify individual differences correlates of performance rating accuracy and of the ability to avoid halo, leniency, and restriction of range errors; and c) explore relationships between the number of raters providing performance evaluations of a ratee and these raters' interrater agreement and accuracy in making the performance judgments.

Section 2 of this report outlines problems in studying person perception accuracy in general and the perception of human performance effectiveness in particular. The difficulties emphasized are a) criterion problems related to establishing solid, justifiable "true scores" reflecting each target ratee's "true standing" on the traits or dimensions of interest; b) methodological pitfalls in selecting scoring indices for determining a rater's accuracy; and c) problems of generalizing individual differences correlates of rating accuracy found in one situation or study to other situations. We suggest possible solutions to these problems including the careful preparation of realistic criterion true scores, the use of Cronbach's (1955) differential accuracy (DA) index as a measure of "true accuracy" in many situations, and a suggestion that person perception accuracy be studied within a few conceptually meaningful contexts in which the "abilities" associated with accuracy are likely to be stable. Section 2 also outlines a rationale for studying performance ratings within a person perception framework and reviews person perception studies which have investigated correlates of accuracy.

To study performance ratings in this project, we used specially developed videotapes of actors performing on two jobs: recruiting interviewer and manager. Behaviorally anchored rating scales (Smith and Kendall, 1963; Dunnette, 1966) were developed for these two jobs, the scales forming the basis for writing scripts which the actors used to role play job performance at preset levels of effectiveness on the various behavioral dimensions. These preset levels of effectiveness or "intended true scores" were generated first by obtaining expert judgments about a) realistic means and standard deviations of performance on the dimensions; and b) realistic correlations among dimensions for each job. Then, for each job, we computed a "true score" matrix which contained scores with the "correct" covariance structure. Sixteen scripts were written, eight for the recruiter job and eight for the manager job, each script mapping as closely as possible the profile of intended true scores. Performers acted out the scripts and our staff videotaped the 5-7 minute performances. Each recruiter or manager performer was a target ratee in subsequent stages of the research.

Criterion "true scores" were estimated by 14 expert judges who carefully studied the videotaped performances. Expert judges independently rated the effectiveness levels on each behavioral dimension for each target ratee. Interrater agreement of the expert ratings was very high; reliabilities on the dimensions ranged from .91 to .98 (median reliability = .95). Also, an analysis of variance depiction of the convergent and discriminant validity of these ratings demonstrated results that compare favorable with results from various published studies. Finally, the mean expert ratings correlated highly with "intended true scores" (median r = .91), indicating both that the actors portrayed well the performance levels intended by the scripts and that the expert judges largely confirmed those performance levels. Methodological evidence suggested that the mean expert ratings provided a valid representation of ratees' performance effectiveness and therefore could be used as criterion "true scores" against which to assess others' ratings.

Our staff members also developed the Minnesota Person Perception Battery (MPPB), a series of scales and items potentially useful for measuring individual differences related to person perception skills. Two hundred fifty-eight college students completed the MPPB. Of those, 150 were asked to return to view the 16 videotapes and to rate the effectiveness of the managers and recruiters on the behavioral dimensions (146 students did return).

Results of the student subjects' ratings showed first that accuracy, halo, leniency, and restriction of range were reliable within situation or job. That is, subjects who were accurate in perceiving a ratee's performance on one dimension of the recruiter job tended to be accurate on the other dimensions of that job; and subjects who were inaccurate on some dimensions of the recruiter job tended to be inaccurate on the other recruiter dimensions. Likewise, accuracy was consistent within the manager job, and the tendency to avoid/commit the three rating errors studied - halo, leniency, and restriction of range - was also consistent <u>within</u> both the recruiter and manager jobs. <u>Across</u>-situation or job reliability was lower for accuracy and two of the three rating errors. Intraclass correlation reliability coefficients across the two jobs were: a) accuracy, .46; b) halo, .72; c) leniency, .32; and d) restriction of range, .58. Though not of especially great magnitude, the reliabilities associated with accuracy, halo, and restriction of range were judged to be high enough to correlate individual differences measures with the "abilities" to be accurate and to avoid the halo and restriction of range errors.

Thus, the MPPB, containing measures of personality, interests, and background variables, was used as a predictor set in an attempt to relate these individual differences to subjects' performance rating accuracy and to their tendency to avoid the halo and restriction of range rating errors. Results of this part of the study showed that the

individual differences we measured accounted for approximately 16 percent of the variance in accuracy scores. A Wherry estimate of the multivariate relationship between 16 summary individual differences variates and accuracy was .41. The largest correlates of accuracy (all positive) were verbal reasoning ability, personal adjustment, and detail orientation.

Halo and restriction of range were more difficult to predict using the MPPB's individual difference variables. Multivariate relationships between the 16 summary variates and halo were near zero, and only about 7 percent of the variance in restriction of range scores could be accounted for by these variates.

Another part of the study examined in an exploratory, and rather crude manner, two assumptions related to accuracy in performance ratings. The first assumption is that the more raters per ratee available to provide performance ratings, the greater the likelihood that the pooled ratings are accurate; and the second assumption investigated is that high interrater agreement in a set of ratings implies high accuracy for those ratings. One of the two Monte Carlo studies designed to examine these assumptions showed that as larger groups of raters were drawn randomly from the student sample, the accuracy of the pooled ratings did increase on the average, though at a constantly decelerating rate. The largest increment in accuracy was gained in moving from one to two raters per ratee, the second largest increment in moving from two to three raters per ratee, etc. Beyond four raters, little gain in accuracy was realized by adding individual raters.

A second Monte Carlo study suggested that to some extent interrater reliability does imply accuracy. Five hundred random samples of each of several sized groups (rater group sizes varied from 2-30) were drawn from the total sample, with the interrater reliability and accuracy of the pooled ratings assessed 500 times for each sized rater group. Interrater reliability-accuracy correlations ranged from .27 to .53 for the recruiter job and from .53 to .66 for the manager job.

The "Conclusions" section of this report offers a tentative "general-specific" model to explain the results of person perception studies in which individual differences have been related to perception accuracy. Results of the present study in conjunction with certain previous findings suggest that a single set of personal characteristics may be appropriate for describing accurate perceivers in widely varying situations. However, individual situations (see Section 2.1, Figure 1, of this report for one possible taxonomy of such situations) may demand, in addition, that the perceiver possess certain other personal characteristics to be accurate in those situations, personal characteristics which are idiosyncratic to only one or to a small number of situations.

The "Conclusions" section also heralds as a methodological advance the development of the videotapes prepared for this research program. The use of videotaped performances with known (and realistic) performance "true scores" appears to offer considerable promise for studying performance ratings within a person perception framework. Although the videotapes and criterion scores were expensive and time consuming to develop, we believe that they provide good estimates of true effectiveness levels associated with each ratee's performance. We further believe that studies conducted in controlled settings, studies possible with these videotapes, will provide more useful information about the performance rating process and about possible ways to improve the validity of performance evaluations than do field studies which often leave many variables uncontrolled, making results difficult to interpret. We recommend that the videotapes be used in other studies of the performance rating process, including investigations of rater training strategies and rating format characteristics seen as potentially fruitful for increasing the accuracy of performance evaluations.

CHAPTER 2

LITERATURE REVIEW

In this section, we discuss issues related to studying interpersonal perception and emphasize the methodological problems that have been encountered. Then we review studies that have investigated the relationship between individual differences and accuracy in person perception.

2.1 The Study of Interpersonal Perception

The study of interpersonal perception has, in general, followed two courses. First, researchers have investigated the process of perceiving others. How do people get to know each other? What kinds of cues do people use in judging another's personality, behavior, etc.? Research on these and similar questions seeks to better understand how persons form impressions of others, make inferences and judgments about others, and evaluate the behavior of others. The second line of research is concerned with questions of accuracy in the perception of others--accuracy in judging another's emotions, personality, and accuracy in predicting another's behavior.

Since the middle 1950's, much of the work in interpersonal perception has focused on the perception process rather than on accuracy. One major reason for this emphasis is Bruner and Tagiuri's influential chapter in the 1954 Handbook of Social Psychology. These two authors urged researchers to pay more attention to process and less attention to accuracy or veridicality of interpersonal perception. They pointed out the complexities of studying veridicality in this domain and argued that more progress in learning about person perception might be gained by studying the process of perceiving others.

Another major reason for a shift away from the study of accuracy is Cronbach's (1955) insightful paper outlining methodological difficulties in measuring accuracy. These difficulties will be detailed later in this section, but, essentially, Cronbach's work questioned the appropriateness of results of earlier studies because of their overly simplistic measurement of accuracy. This paper and others (e.g., Gage and Cronbach, 1955; Cronbach, 1958; Cline, 1964) have identified complex methodological difficulties, and this has, undoubtedly, discouraged the study of accuracy in interpersonal perception.

In fact, problems involved in assessing interpersonal accuracy stem from at least three sources. First, complex criterion problems exist. How should criterion scores be established? How can a rater's accuracy be assessed when no solid, justifiable criteria are available? Second,

researchers have had problems in selecting a method for computing accuracy scores even if the criteria are well established. And, third, results of an accuracy study do not necessarily generalize to different settings.

Establishing good criterion scores for studies of perceptual accuracy is very difficult, and this problem is especially serious when dealing with such abstract concepts as personality traits. For example, "dominance": What final authority can decide whether peer ratings, self-ratings, or a personality scale of dominance should be used as the criterion scores? All have some justification for being considered as the source of target criterion scores for the trait dominance.

One hope for avoiding this difficulty is to secure a number of measures of the same construct and then intercorrelate them. If the measures intercorrelate highly, they possess convergent validity. This outcome can lead to an acceptance of the mean across measure score as the criterion "true score" for the construct. However, multiple measures of the same variable are difficult to obtain even if multiple measures are obtained, large amounts of method-specific variance may well preclude good convergent measurement. In that case, one is left wondering which, if any, of the measures reflects the "true" criterion scores.

The second problem relates to the statistical procedures appropriate for assessing accuracy in person perceptions. (See Cline, 1964 and Cronbach, 1958 for excellent reviews of these measurement problems.) Briefly, in 1955, Cronbach severely criticized the summary D^2 statistic often used in person perception studies to index accuracy. He showed that a measure of D^2 between a rater's ratings and the criterion scores contained several different accuracy components. The four he named were elevation, differential elevation, stereotype accuracy, and differential accuracy. Further, he speculated that these different components might yield uncorrelated scores. Cline (1964) later demonstrated empirically that these scores did, in fact, intercorrelate only minimally. This result suggests that a generalized "ability" to accurately rate others does not exist; persons may appear to be good at perceiving others when accuracy is defined one way, but seem poor at perceiving the same individuals when accuracy is defined in another way.

This situation is somewhat less complex and hopeless, however, if the psychological significance of each of these "pure" accuracy components is examined closely. For example, one is seldom interested in using either elevation or differential elevation as an accuracy measure. Elevation is simply a measure of a judge's grand mean rating compared to the grand criterion mean, and differential elevation measures the extent to which a judge can predict a target ratee's deviation from the grand mean over all traits or dimensions. For some purposes, we might wish to employ stereotype accuracy as our measure of perceptual accuracy (where stereotype accuracy is defined as the degree to which a rater accurately rank

orders the mean, across ratee trait or dimension scores). This index is appropriate if, for example, we wanted to assess a teacher's ability to evaluate his/her class's standing on skills associated with reading, mathematics, spelling, etc. Such a measure would indicate how sensitive the teacher is to the academic needs of the class as a group. Stereotype accuracy also is appropriate for measuring estimates of group opinion.

For most situations, however, differential accuracy appears to be the only conceptually appropriate index. Indeed, under most conditions we are concerned with how accurately the rater can rank order target persons on some dimension. For example, we might want to know how correctly a person evaluates a number of target ratees on intelligence. Criterion problems aside, the index applicable in this setting is differential accuracy--the correlation between ratings of each target person on intelligence and their "true scores" on this construct.

Others have also argued for using differential accuracy as the measure of perceptual accuracy. For example, Sechrest & Jackson (1961) state, ". . . the problem of eliminating response biases is not insurmountable. The solution seems to lie in requiring differential predictions across objects" (p. 168). And, Hastorf, Schneider, and Polefka (1970) write, "This [differential accuracy] score is probably closest to what a sophisticated reader of the research literature in this [person perception] area would regard as a "true" accuracy score because the various "response bias" components (elevation, differential elevation, and stereotype accuracy) have been eliminated" (p. 32). Furthermore, the differential accuracy score is free from such contaminating influences as "assumed similarity." From both a theoretical and a practical standpoint, differential accuracy does indeed appear to be most appropriate and meaningful for assessing the accuracy of performance judgments.

A third problem with studying interpersonal accuracy is that results may not generalize to other situations. A person who is an accurate perceiver in one setting may not be as accurate under different conditions. Gage and Cronback (1955) and Dunnette (1968) have outlined large numbers of contexts in which persons might be expected to exercise person perception skills. Each of these conditions may require different skills and abilities for the accurate perception of others. Figure 1 lists four categories, each of which is a dimension along which person perception situations might vary (see Figure 1).

First, the type or form of interaction between perceiver and target person may vary widely (Dunnette, 1968). The perceiver might be in conflict or in competition with the target person, or their interaction may involve an authority relationship (e.g., boss-subordinate), a helping relationship, or a manipulative kind of relationship (e.g., selling). These represent only a few of the many types of interactions possible. Another obvious category is the kind of personal characteristic, behavior, etc. to be judged. Personality traits, biographical information, future behavior of various kinds, and past performance or effectiveness are only a small sample of the

Figure 1

Examples of the Contexts in Which Persons Might Perceive and Make Judgments about Others

Form of Interaction (Dunnette, 1968)

.Competition & Conflict
.Problem Solving
.Manipulation (selling)
.Helping (counseling)
.True Love
,Assessment (job interviewing)
.Authority (boss-subordinate)
.Casual Contact (e.g., purchasing theater tickets)
.Simple Observation (e.g., through a one-way screen or in an airline terminal)

Things About the Target Ratee Being Judged

.Future Behavior
.Past Behavior
.Opinions
.*Biographical Information*
.Standing on Traits
.Performance or Effectiveness

Amount and Relevance of Information Available About the Target Ratee

.Much relevant information
.Much information but irrelevant to the characteristics, behavior, etc. being judged
.Little information

Type of Target Person Being Judged

.Older persons
.Younger Persons
.Persons of various races
.Persons from various parts of the USA or from different countries
.Males
.Females
.Persons with various backgrounds
.Persons with various salient personal characteristics

kinds of variables for which judgments about others might be made. Also, the kind of information available to the perceiver about the target ratee can vary considerably. One might be making person perception judgments about a new acquaintance, an old friend, or someone observed from afar. Further, the information available to the perceiver about a ratee may be relevant or irrelevant to the specific rating task. Finally the "type" of target person being perceived may affect accuracy. Bronfenbrenner, Harding, and Gallwey (1958) found, for example, that persons accurate in perceiving males were not necessarily accurate in their judgments of females. Other ratee characteristics such as age, personality, and background could also be related to accuracy.

The number of possible person perception situations increases tremendously when one considers that a condition within a category can usually combine with many conditions in the other categories. Because of this immense potential for variety, person perception accuracy is probably not a reliable "ability" across all possible situations. More likely, certain people are good at perceiving others in some contexts while others are more accurate in making person perception judgments in other settings. Gage and Cronbach (1955) adopted this position and argued that it should come as no surprise that little correlation exists among accuracy scores obtained in very different settings.

Research results assessing the relationship between accuracy in different situations will be reviewed in depth in Section 4.1.2 of this report. For now, most studies have found that accuracy scores across situations are not highly correlated. This suggests that individual differences associated with person perception accuracy may be different for different situations; that is, finding a single set of perceiver characteristics which can describe accurate perceivers in all situations is unlikely. Research reviewed later in this report supports this impression.

Allport (1961)[1] may be the only dissenter to this position. He concludes that accurate perceivers have the following personal characteristics: breadth of personal experience, intelligence, cognitive complexity, self-insight, social skill and adjustment, detachment, esthetic attitude, and intraceptiveness.

---

[1] In reviewing the literature Taft (1955), Allport (1937), and Bruner & Tagiuri (1954) concluded that certain personal characteristics appear to describe the "good judge" over a variety of settings. However, Cronbach's (1955) and Crow & Hammond's (1957) more recent work suggests that at least some of the generality in the accuracy "ability" was caused by artifactual across-situation relationships. Crow & Hammond (1957), for example, found that rating response tendencies were consistent across situation but that when these response biases were removed and a pure differential accuracy measure employed, reliability dropped to near zero. They concluded that response characteristics (such as leniency and restriction of range) which were imbedded in the earlier accuracy measures may well have lead to the consistence in accuracy scores across situation.

Perhaps Tagiuri's (1969) position is most reasonable. He states that some persons may indeed be accurate perceivers across a wide range of situations because they possess abilities and personal characteristics important for perceiving others accurately in various conditions. The majority of persons, however, are "specialists" in that they may be good judges in some situations and poor judges in other situations.

One approach which avoids the generality problem is to study accuracy within a relatively narrow range of situations. If one can identify certain situations that are of a particular interest, accuracy can be studied in depth within those contexts. Then if certain individuals are accurate across these similar contexts, i.e., they are consistently accurate, the individual differences associated with this "ability" can be more readily pinpointed.

In spite of these serious difficulties in assessing accuracy, a number of psychologists believe, as we do, that the study of person perception accuracy should be given continued attention. This is not to say that process considerations should be ignored. Indeed, we need to study in depth why persons perceive others in certain ways and how they form, change, and hold beliefs about other persons. Still, in several contexts, learning about "abilities" associated with accuracy appears to be of great importance. Examples are: employment interviewers and clinicians predicting the future behavior of interviewers/clients; persons contemplating marriage attempting to identify the personal characteristics of their potential partner and to predict the future behavior of that potential partner; managers or other kinds of leaders trying to identify in associates those personal characteristics which might allow the proper allocation of human resources available to them.

The rating of human performance involves another set of situations which may be homogeneous enough that a single set of abilities are associated with accuracy. Of course, the rating of performance does not represent an extremely narrow set of situations; still, we believe this focus increases the probability of discovering a reliable "ability" of accuracy in rating human performance.

Why study performance rating ability? Besides the compelling basic research interests of learning about how and why some persons are more accurate raters than others, additional important practical reasons exist for studying performance ratings and attempting to increase their accuracy.

Psychologists concerned with personnel research are extremely dependent on the quality of performance criteria--the measures of individuals' job proficiencies. Indeed, the "criterion" problem is often cited as the most pervasive problem in personnel psychology. If we are to learn how various factors influence individuals' effectiveness and performance on the job, then we must have a comprehensive and accurate means of portraying a person's

job performance. The meaningfulness of any correlation between facets of work performance and variables such as personal characteristics, types and amount of training, organizational climate, etc., are greatly dependent on the quality of the performance measures.

In organizations, practitioners are also in need of complete and accurate performance information for individuals in the organization. Many decisions related to promotions, pay, training, assignments, etc., are made on the basis of judgments of past job performance. One way to ensure that these personnel decisions are good ones is to provide decisions makers with high quality performance information on individuals in the organization. Unfortunately, performance information is often not of high quality. Instead, considerable error is present in the criterion measures, thus diminishing their usefulness. Therefore, learning about and improving performance measurement is very important both to research personnel psychologists and to practitioners within the organizations.

By far the most widely used (and misused) type of instrument for obtaining performance measures on individuals in organizations is the rating scale. In fact, ratings are frequently the only available criteria against which to validate selection, promotion, or other personnel decisions. The heavy use of performance rating scales in organizational settings and the problems associated with this use have led researchers to study performance ratings and to pursue strategies to reduce rating errors. One such strategy has been to design performance rating scales to help raters make more error-free evaluations. For example, behaviorally anchored scales (Smith & Kendall, 1963) have been suggested as a means for overcoming or reducing many errors encountered in job performance rating systems (e.g., Dunnette, 1966; Campbell, Dunnette, Lawler & Weick, 1970). Second, researchers have tried to train raters to reduce errors in their performance evaluations. Latham, Wexley and Pursell (1975) and Borman (1975) provide two examples of such efforts.

Yet, these two approaches and others designed to reduce rating errors have not usually been successful. Even when rating conditions are relatively good--i.e., when ratings are made for research only, when raters know ratees' performance well, etc., interrater reliability of ratings is generally not very high, and halo along with other rating errors remains a problem. Thus, even when rating conditions are good, the lack of reliability and the presence of rating errors suggest that these ratings are also often inaccurate.

The last few paragraphs have provided perhaps an overly simplified view of efforts by personnel and industrial psychologists to improve the quality of performance ratings. However, we submit that the approaches used by applied psychologists to increase rating accuracy have been largely unsuccessful and that new strategies for improving the quality of performance effectiveness ratings are definitely needed.

One new approach is to study performance ratings within a person perception framework. This approach argues for conducting basic research to better understand the performance rating process and to gain knowledge about the kinds of rater characteristics and the kinds of conditions that are associated with accurate performance ratings. A more basic understanding of accurate perception of performance effectiveness may well lead to practical benefits. For example, where appropriate, persons who are most likely to be accurate perceivers can be selected to provide the ratings. In addition, rating forms may be fashioned to fit more closely a rater's thought processes, with the form guiding the rater through the process of making accurate evaluations. And finally, training approaches may be geared toward teaching the rater how to attend to the proper cues, how to correctly use the rating form, etc.

The research reported here is hopefully a start in the direction of a more complete understanding of performance rating accuracy; in this study we investigated the rating of performance as a person perception phenomenon. The research was conducted in a laboratory setting, thereby controlling many of the variables which often contaminate field research. An important feature of the research was its emphasis upon relationships between individual differences and accuracy in making performance ratings. We wished to explore the characteristics of "good" and "poor" raters and to determine if consistent, reliable differences between such raters might be identified.

The person perception literature contains a number of studies which examine individual differences correlates of perceptual accuracy, and the results of these studies are instructive for our research. The literature of person perception research deals most often with accuracy in perceiving such things as others' personalities, personal characteristics, and opinions, or in predicting others' behaviors (past or present). As such, much of the relevant literature has dealt with judgments which demand a level of inference beyond that of merely observing and describing behavior accurately such as is the case for carrying out accurate performance ratings. Nonetheless, the skills used in making the more inferential judgments may be similar to those used in observing and describing performance accurately. Thus, we shall review the person perception studies in which relationships between individual differences and accuracy are investigated.

2.2 Individual Differences and the Accuracy of Interpersonal Perception: Pre-1955

For the pre-1955 review of studies relating individual differences to person perception accuracy, we draw heavily on the Taft (1955) and Bruner and Tagiuri (1954) reviews of the literature. Also, we use Taft's classification scheme to catalog the personal characteristics found to be correlated with perceptual accuracy. Before summarizing relevant research results, however, it should be mentioned that various problems in measuring accuracy (see Section 2.1 of this report) render equivocal the usefulness of these studies.

2.2.1 Age. Studies of person perception suggest that age, at least for adults, is not an important correlate of perceptual accuracy (e.g., Chowdhry and Newcomb, 1952; Estes, 1938).

2.2.2 Sex. In studies involving trait ratings or the prediction of responses to an inventory, no consistent sex differences in accuracy have been found (e.g., Travers, 1941; Valentine, 1929). Taft reviewed four studies which did indicate superior accuracy for female perceivers, but three of those studies involved the rating task recognition of emotions. The majority of research reports have suggested no male-female differences in person perception accuracy.

2.2.3 Intelligence and perception. A fairly consistent, low positive correlation has been found in studies relating intelligence to person perception accuracy, (e.g., Taft, 1950; Wedeck, 1947; Vernon, 1933). Furthermore, the relative homogeneity of subjects' intelligence within these samples probably means that the obtained intelligence-accuracy correlations underestimate the "true" relationships.

2.2.4 Training in psychology. Results here are mixed. Taft (1955) concludes that physical scientists, and possibly other nonpsychologists, appear to be more capable of judging others accurately than are either psychology students or clinical psychologists. And, taking courses in psychology did not improve the ability to perceive and to rate others accurately (Luft, 1950).

2.2.5 Esthetic ability and sensitivity. Dramatic and artistic interests are correlated positively with person perception accuracy in the few studies evaluating these relationships (Estes, 1939; Taft, 1950). Dramatic and artistic abilities, however, are not so consistently correlated with accuracy (Taft, 1950).

2.2.6 Emotional stability. Well-adjusted, emotionally stable persons tend to rate others more accurately than do maladjusted persons (e.g., Green, 1948; Scodell and Mussen, 1953; Taft, 1950). Elevation on the MMPI psychosis scales have been shown to be very highly related negatively to perceptual accuracy (Taft, 1955).

2.2.7 Social skills. Positive relationships have been found between accuracy and leadership ability (Chowdhry and Newcomb, 1952), salesmanship (Tobolski and Kerr, 1952), and popularity, (Gage, 1953). Each of the rating tasks used in these studies required judges to predict a group's responses to some inventory; however, when tests of person perception accuracy involving individual target person have been used, the results are not so consistent (Taft, 1955).

2.2.8 Attitude toward social relations. Persons more socially detached (Adams, 1927), independent (Adams, 1927), and task versus socially oriented (Taft, 1950), have been shown to be relatively accurate in their perception judgments.

In sum, pre-1955 studies indicate that accurate perceivers of others tend to be intelligent, specialists in the physical sciences, emotionally stable, task oriented, and interested in drama and in art. Unfortunately, the methodological difficulties associated with the measurement of accuracy make the findings of most of these studies questionable (Cronbach, 1955; Hasdorf and Bender, 1952; Campbell, 1955).

2.3 Individual Differences and the Accuracy of Interpersonal Perception: Post-1955

After the publication of the articles outlining various methodological pitfalls in accuracy studies (Cronbach, 1955; Campbell, 1955; Hasdorf & Bender, 1952; Gage, Leavitt, & Stone, 1956), few researchers interested in interpersonal perception continued to consider person perception accuracy. Some focused on the interpersonal meaning of certain sources of rating bias. For example, Fiedler (1953, 1964) studied the meaning of evaluating favorable disliked persons. Mitsos (1961), Bonarius (1968) and others investigated the psychological meaning of persons making extreme ratings of others. Still others examined the meaningfulness of assumed similarity and restriction in range (differentiation) in ratings of target persons (reviewed by Shrauger and Altrocchi, 1964). Also, as mentioned previously, the study of impression formation and how persons proceed in making judgments about others continued to be a popular topic.

Cline's (1964) work illustrates yet another direction of study. He and his associates (e.g., Cline & Richards, 1963) studied the interrelationships among accuracy components. They found, for example, that individual differences were associated mostly with stereotype accuracy (Cline and Richards, 1960).

Yet, a few researchers did continue to study relationships between individual differences and person perception accuracy. The following is a review of two sets of post-1955 studies which have dealt with the topic.

2.3.1 Studies using "D" measures of accuracy to assess relationships between individual differences and accuracy. Despite Cronbach's warnings that several components, most notably stereotype and differential accuracy, are imbedded in any "D" or "D^2" measure of accuracy, at least three studies have employed the "D" statistic to evaluate individual differences related to person perception accuracy. First, Vingoe and Antonoff (1968) administered personality inventories to 66 college freshmen women and then asked them to "predict" the personality test scores of those women in the sample whom they knew well. "D's" between the predicted personality test scores and actual ratee personality test scores were computed for each rater-ratee pair and pooled across ratees

for each rater to form a total accuracy score for each of these raters in the sample. The personality test scores of the 11 most accurate raters were then compared to the personality test scores of the 11 least accurate subjects. Results showed that the accurate perceivers of personality scored significantly higher on the following California Psychological Inventory scales: "Sense of Well Being," "Tolerance," "Self-control," and "Good Impression." Less accurate subjects scored significantly higher on scales measuring "Neuroticism" and "Extraversion."

Hjelle (1969) criticized Vingoe and Antonoff's study on the grounds that the more accurate perceivers in their study might simply have been more familiar with persons they rated than the less accurate perceivers. Hjelle used as subjects 72 freshmen male roommates who had just met each other in an orientation program. Each subject completed several California Psychological Inventory (CPI) scales, once for himself and once as he thought his roommate would. Accuracy for a rater was computed as the difference between "predicted" target person's responses and the "actual" target person's responses. CPI scores of the 18 most accurate raters were then compared to scores received by the 18 least accurate raters. Again, "Sense of Well Being" and "Tolerance" successfully differentiated between accurate and inaccurate perceivers. Accurate raters had significantly ($p < .01$) higher scores on these two CPI scales than did the inaccurate rater group. The accurate perceivers also scored significantly ($p < .05$) higher than members of the less accurate group on the CPI scale "Psychological Mindedness."

A third paper (Edwards & McWilliams, 1974) used four videotaped target ratees to study relationships between individual differences on CPI variables and accuracy of person perception. Two ratees were females; two were males. The CPI was administered to 65 male and 97 female undergraduate students. Then, the students estimated the videotaped target ratees' self-ratings on Osgood's three semantic differential dimensions (potency, activity, evaluation). During each videotape performance, each ratee answered questions about his/her family, grades, and personal finances. A simple "D" score between predicted ratings and actual self-ratings was again employed to measure accuracy. Data were analyzed separately for male and female ratees. Raters in the top and bottom 27 percent of the two accuracy (accuracy in rating males and accuracy in rating females) distributions formed high and low accuracy groups. High accuracy raters of male ratees scored significantly lower on "Dominance", "Sociability", and "Achievement via Conformance" CPI scales. High accuracy raters of female ratees scored significantly lower on the "Self-Control" and "Achievement via Conformance" CPI scales. Low scores on "Achievement via Conformance" for raters were common to accurate perception of both male and female ratees.

Clearly, results of the three studies just reviewed must be interpreted with caution. A "D" measure of accuracy contains the potpourri of accuracy compoments illuminated by Cronbach (1955). Also, "assumed

similarity" could certainly explain part of these results. If raters were using this projective rating error, and other studies have shown that many raters do "assume similarity" (e.g., see Gage and Cronbach, 1955), then subjects most similar to ratees would tend to receive the highest accuracy scores. Thus, these studies extend very little our knowledge of relationships between personal characteristics and person perception accuracy.

2.3.2 Other post-1955 studies employing "impure" accuracy measures to assess relationships between individual differences and accuracy. Fancher (1966, 1967) carried out two studies designed to relate the implicit personality theories the subjects espoused and used to accuracy in interpersonal perception. In each study, he used three target ratees for whom specific information about behavior they had exhibited was available. Thirty-eight "events" were abstracted from their case histories. Events ranged from responses to a TAT (Thematic Apperception Test) to a political attitude expressed. Two alternative behaviors (which the target ratee had not exhibited) were included with each "true" behavior in a multiple choice format. Subjects were asked to select which of the three events actually occurred in each target ratee's life. Subjects received feedback about the correct response after each guess so that they gained more and more information about a target ratee as they moved through the protocol.

In the 1966 study, Fancher found that when he divided his 24 subjects into two groups--those higher in math ability and those higher in verbal ability--several striking differences in the relationships between the implicit personality theory and accuracy emerged. The subjects more mathematically inclined were most accurate when they de-emphasized the importance of individual uniqueness (as tapped by a questionnaire measuring implicit personality theory). In short, a nomothetic approach seemed most effective for the mathematically-oriented subjects. Verbal "types" were most accurate when "they stressed the complexity, purposiveness and perhaps uniqueness of each individual personality from stances similar to those taken by Allport, Lewin, or Jung." (Fancher, 1966, pp. 260). Thus, the relatively accurate subjects among the verbally oriented used an idiographic approach to predicting human behavior.

In another study, Fancher (1967) investigated the relationship between accuracy in conceptualizing others' personalities and accuracy in postdicting others' actual behavior. Fancher operationalized "conceptual accuracy" by asking subjects to study the three case histories used in the 1966 study and to develop analyses which a second set of judges then used to postdict the behavior of the three target ratees (the format for the postdiction was the same as in the 1966 study). A subject received a high "accuracy in conceptualizing" score if the second set of judges (using the subject's materials) was accurate; the subject received a low "accuracy in conceptualizing" score if the second set of judges was

relatively inaccurate. Subjects also postdicted the ratees' behavior using the same format as was used in Fancher's 1966 study. Thus, each subject both conceptualized others' personalities and postdicted others' actual behavior.

Fancher found that conceptualization accuracy correlated -.41 with postdiction accuracy. This relationship, along with differences in the patterns of correlations between these two different types of accuracy and variables similar to those used in the 1966 study, suggested that two types of judges exist. Judges who are accurate in predicting (or postdicting) behavior are fair and objective in appraising others and take an empathic view in the process of judging target persons. Judges who are accurate in conceptualizing personality "impose their own pre-existing subjective--but well systematized--category systems on the case material" (Fancher, 1967, p. 268). Fancher also suggests that clinicians may often be good conceptualizers and poor predictors of behavior.

Unfortunately, the fascinating results of these studies are rendered equivocal because a potentially contaminated accuracy index was used. Assumed similarity and various response biases may have seriously affected the accuracy scores subjects received in these studies.

In the present study, we sought to avoid such methodological pitfalls and criterion and generalizability problems. Our efforts a) to study the reliability with which raters make accurate performance ratings; b) to identify individual differences correlates of raters accuracy and the ability to avoid the rater errors of halo, leniency and restriction of range; and c) to examine the relationship between interrater agreement and accuracy thus took into account Cronbach (1955, 1958), Gage and Cronbach (1955), and Cline's (1964) criticisms of person perception studies. The results of the present study are therefore less equivocal and more definitive.

CHAPTER 3

METHOD

First, we summarize methods and procedures used in the study. Briefly, behaviorally anchored rating scales (Smith and Kendall, 1963; Dunnette, 1966) were developed for two distinct jobs: recruiting interviewer and manager. These formed the basis for writing scripts to be used by actors who role played job performance at preset levels of effectiveness on the various behavioral dimensions. These preset levels of effectiveness or "intended true scores" were generated first by obtaining expert judgments about a) realistic means and standard deviations of performance on the dimensions and b) realistic correlations among dimensions for each job. Then, for each job, we computed a "true score" matrix which contained scores with the "correct" covariance matrix. Sixteen scripts were written, eight for the recruiter job and eight for the manager job, each script mapping as closely as possible a profile of intended true scores. Performers acted out the scripts and our staff videotaped the 5-7 minute performances. Each recruiter or manager performer was the target ratee in subsequent stages of the research.

Our staff members also developed the Minnesota Person Perception Battery, (MPPB), a series of scales and items potentially useful for measuring individual differences related to person perception skills. Two hundred fifty-eight college students completed the MPPB. Of those, 150 were asked to return to view the 16 videotapes and rate the effectiveness of the managers and recruiters on the behavioral dimensions. The methods and procedures are outlined more fully below:

3.1 Selecting the Jobs and Developing Behavior Rating Scales

In designing this research, we sought to select jobs such that a short behavior sample would be sufficient to depict each performer's effectiveness on all the relevant dimensions. Raters could then view the videotapes of several incumbents, one at a time, and rate the effectiveness of each incumbent with reasonably good knowledge of the type of behavior represented on all dimensions. The "jobs" selected were a) recruiting interviewer and b) manager in a problem-solving situation.

For the recruiter job, target ratees were depicted as persons representing a company interested in hiring students about to receive their undergraduate degree. Each recruiter was supposedly on the college campus to select one or more of the several individuals he interviewed. The recruiter was to probe interviewees for information relevant to a selection decision, to answer questions competently, and to leave the interviewee with a good impression of his company.

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For the manager job, target ratees were portrayed as holding a problem solving session with a valuable but troublesome subordinate named Whipker. The manager was to move toward a constructive solution to Whipker's problems--to help Whipker reduce his work related difficulties yet maintain or improve Whipker's productivity in the department.

The two jobs selected thus made it possible for raters to observe a wide range of job-related behavior during the 5-7 minute sequences, behavior relevant to all aspects of the job. The next research step was to develop rating scales suitable for evaluating the behavior of the recruiters and managers.

Performance scales for the recruiter job had already been developed in another study. In that study, Groner (1974) used behavior scaling methodology (Smith and Kendall, 1963; Dunnette, 1966) to develop seven dimensions of recruiter performance. Our staff members modified his scales slightly for use in this study. We dropped one of his dimensions and made minor changes in the wording of behavioral anchors. We submitted these revised anchors to a check which will be described in the next section. In addition, the first author wrote behavior summary statements for three levels of effectiveness--effective, adequate, ineffective--for each of the six dimensions. These statements summarized the specific behavioral anchors which were located within each of the three levels of effectiveness of a scale. Two such summary statements were written for each of the three levels for each of the six scales. The recruiter dimensions are: Creating a favorable image for the company; Organizing the interview; Providing relevant information about the company; Asking relevant questions; Answering recruitees' questions; and Establishing rapport with interviewees. (The recruiter scales appear in Appendix 1.)

Completely new rating scales for the manager job were developed using a variant of the behavior scaling methodology. Six PDI staff members provided the incidents, each one contributing several examples of effective, ineffective, and adequate or average manager performance. Because this type of managerial situation is role played in PDI's management assessment center, we encouraged the six PDI persons to use examples from detailed assessment center reports which were available. A total of 239 examples were gathered; eliminating duplicate items brought the size of the list to 196. Then, independently, two PDI staff members content analyzed the 196 examples, one grouping them into eight dimensions, the other into seven dimensions. Below are the two sets of dimensions:

I	II
.Interpersonal Competence	.Establishing Rapport
.Probing and Confronting	.Reacting to Stress
.Building a Continuing Relationship	.Obtaining Information
.Organizing and Planning	.Motivating Whipker
.Reacting to Stress	.Accepting Managerial Responsibilitie
.Oral Communications	.Showing Good Judgment in Supporting and Reinforcing Whipker
.Displaying Concern for the Company's Welfare	.Confronting Whipker Constructively
.Structuring and Controlling the Interview	

The authors of these two dimension sets examined the similarities and differences in the solutions and developed a single list of dimensions which formed a composite of the two separate sets. The dimensions appear below: (See Appendix 1 for the complete scales.)

.Structuring and Controlling the Interview
.Establishing and Maintaining Rapport
.Reacting to Stress
.Obtaining Information
.Resolving Conflict
.Developing Whipker
.Motivating Whipker

The next step in developing the manager scales was to gather "retranslation" data (Smith and Kendall, 1963) for the behavior examples. The retranslation process consists of a different set of judges independently sorting examples into dimensions and scaling examples according to level of effectiveness. This process provides a way to ensure that each behavioral anchor reflects clearly the content of the dimension and the level of effectiveness it was designed to represent. For example, if retranslation raters consistently sort an example into the same dimension and rate its effectiveness at about the same level, then that example is unambiguous and can be included on the relevant scale. If a behavior example is either sorted unreliably or rated inconsistently, the example is ambiguous and should not serve as an anchor on any scale.

We performed a three-step retranslation of behavior examples. First, the 196 examples were listed in random order and presented to seven professional psychologists knowledgeable about performance in this job setting. These judges were asked to sort each example into one of the seven performance dimensions developed previously. Those that were sorted into a single dimension by five or more of the seven judges were retained for further analysis.

Next, the reliably sorted examples were arrayed within their respective dimensions and given to PDI staff members who selected (for each dimension) seven examples which best reflected the full range of effectiveness in that performance dimension--from very effective to very ineffective. Each was asked to select an example for "1" (very ineffective), "2" (ineffective), "3" (a little below average), and so on through "7" for each of the two dimensions he/she was assigned. These staff members made minor changes in the wording of some examples when necessary to ensure coverage of each point on the scale.

Finally, as a check on the clarity of the anchors and the order of the anchors within the scales, we asked three other judges, judges who had neither participated in the selection of examples for dimensions nor in the scale building step discussed in the previous paragraph, to rank order the examples within each dimension according to effectiveness. For this task, the seven examples were listed randomly within each of the seven manager scales.

Judges performed this task for the recruiter job as well to insure that those scales also provided unambiguous anchors. Results appear in Table 1.

The interrater agreement was, in general, very high. Further, the rank order of the mean ranks coincided perfectly with the intended rank order except in two cases where ties occurred between adjacent behavior examples. We made slight wording changes in those examples to differentiate the performance levels.

In addition to the specific behavior examples, each scale contained six summary statements. Two summary statements anchored each of three areas on the scale--effective (6 and 7), average (3, 4, and 5), and ineffective (1 and 2). These summary statements were a more abstract and general depiction of performance at each of three levels on a scale. (Again, see Appendix 1 for the final rating scales.)

3.2 Generating Intended "True Scores" for Performers

Now that the rating scales were completed, we were ready to develop videotapes of persons performing on the two jobs. Fatigue and the attention span of raters who would view these tapes argued for developing a relatively small number of videotaped performances for each job. Yet statistical considerations demanded that the number of tapes not be too small. We decided that eight videotaped performances would be statistically adequate and not too taxing on the viewers.

To make performances on each job as realistic as possible, a covariance matrix was generated for each job by asking experts to estimate the "true" means and standard deviations of performance on each dimension and the "true" intercorrelations among these dimensions. Then, performance profiles with "intended true scores" and the "correct" covariance structure were formed for ratees performing on the two jobs.

More specifically, five expert judges independently estimated the intercorrelations to be expected among dimensions when these jobs are actually performed. These judges, knowledgeable about the concept of correlations, estimated the correlation between each pair of dimensions for each job. They used a 1-7 scale, where "7" indicated a +1.0 correlation; "6" a +.67 correlation; "5" a +33 correlation; "4" a zero correlation; "3" a -.33 correlation; and so on.

A descriptive estimate of the reliability associated with these judgments was obtained by using an ANOVA procedure to compare variability in different judges' ratings of the same dimension pairs with total variability in the judgments. The resulting intraclass correlations for these judgments were .81 ($p. < .01$) for the manager job and .82 ($p. < .01$) for the recruiter job, suggesting considerable reliability for this judgment task. Therefore, we computed mean ratings for each dimension pair (on the 1-7 scale) and transformed these means directly to correlations.

TABLE 1

Interrater Agreement on Rank Order of Behavior Examples
Effectiveness Levels Within Each Dimension

RECRUITER JOB		MANAGER JOB	
Dimension	Coefficient of Concordance*	Dimension	Coefficient of Concordance*
A. Creating a Favorable Image for the Company	1.00	A. Structuring and Controlling the Interview	.94
B. Organizing the Interview	.88	B. Establishing and Maintaining Rapport	.98
C. Providing Relevant Information About the Company	.89	C. Reacting to Stress	.98
D. Asking Relevant Questions	.95	D. Obtaining Information	.94
E. Answering Recruitees' Questions	.98	E. Resolving Conflict	.95
F. Establishing Rapport with Interviewees	.86	F. Developing Whipker	.98
		G. Motivating Whipker	.98

* Kendall's Coefficient of Concordance was used in these analyses (Hays, 1963, p. 656)

The resulting correlations along with dimension means of 4 and standard deviations of 1.5 were used to generate an intended true score matrix for ratees on each job, following a method outlined by Naylor and Wherry (1965). Because the intended true scores were expressed at half-point intervals (e.g., 1.0, 1.5, 2.0, etc.), these scores generated close to but not exactly the target covariance structures. Table 2 presents the target and obtained means, standard deviations, and intercorrelations among dimensions. Table 3 shows the resulting "intended" performance profiles for performers on each of the two jobs.

The resulting intended true score matrices (Table 3) thus provided realistic multidimensional performance profiles for 16 individuals, 8 for the recruiter job and 8 for the manager job.

3.3 Developing and Videotaping the Performances

Sixteen scripts were written, each depicting either a recruiter interviewing a prospective employee or a manager talking with his problem subordinate. The scripts reflected as closely as possible the performance levels defined by the intended true scores. For example, one of the manager ratees had an intended true score of 3.5 on the dimension "Developing Whipker" and a 5.0 on "Motivating Whipker". The dialogue for this script depicted the manager as a little below average in eliciting and suggesting developmental plans and somewhat above average in motivating his subordinate. In this manner, script writers oriented the performances toward the intended patterns of effectiveness.

The next step in preparing the scripts was to have three persons, working independently, (the senior author and two research assistants) use the behavior scales to rate the level of effectiveness of the behavior depicted in the scripts. These ratings were then examined for reliable discrepencies from intended true scores. The three raters discussed situations where substantial discrepancies existed, and in such cases usually altered the script to reflect more accurately the level of performance intended. After these and certain editorial changes were made, the scripts were ready for use in taping.

Actors were then selected for the various roles. The actor, a college senior, played the recruitee in all eight recruiter performances, and a professional actor played Whipker, the problem subordinate, in all eight manager performances. Sixteen different actors played the various recruiter and manager roles. These actors were graduate students, PDI staff psychologists, and members of other professions.

The following is a description of a typical taping session. All actors, the ones playing the ratee (interviewer or manager) and the ones playing the recruitee or Whipker, studied their scripts before arriving at the taping session. Thus, all actors were familiar with their roles prior to taping.

TABLE 2

Target Covariance Structure and

The Structure Obtained Using Intended True Scores

MANAGER JOB

Means	Standard Deviation	Dimensions	A	B	C	D	E	F	G
4.0 (3.9)*	1.5 (1.53)*	A. Structuring and Controlling the Interview	--						
4.0 (4.1)	1.5 (1.53)	B. Establishing and Maintaining Rapport	-.10 (-.09)*	--					
4.0 (3.9)	1.5 (1.42)	C. Reacting to Stress	.33 (.36)	.27 (.23)	--				
4.0 (4.1)	1.5 (1.51)	D. Obtaining Information	.46 (.43)	-.04 (-.14)	.33 (.32)	--			
4.0 (3.9)	1.5 (1.49)	E. Resolving Conflict	.21 (.23)	.40 (.40)	.44 (.38)	.21 (.15)	--		
4.0 (3.9)	1.5 (1.51)	F. Developing Whipker	.10 (.12)	.52 (.50)	.13 (.06)	.21 (.18)	.44 (.46)	--	
4.0 (4.0)	1.5 (1.46)	G. Motivating Whipker	.10 (.08)	.50 (.45)	.23 (.18)	.29 (.18)	.42 (.43)	.75 (.75)	--

* Means, standard deviations, and correlations not in parentheses are the target numbers, those numbers in parentheses are the obtained numbers.

TABLE 2 (cont'd)

RECRUITER JOB

Means	Standard Deviation	Dimensions	A	B	C	D	E	F	G
4.0 (4.1)*	1.5 (1.49)*	A. Creating A Favorable Image for the Company	--						
4.0 (4.1)	1.5 (1.55)	B. Organizing the Interview	.25 (.28)*	--					
4.0 (3.9)	1.5 (1.53)	C. Providing Relevant Information About the Company	.54 (.55)	.27 (.29)	--				
4.0 (4.0)	1.5 (1.46)	D. Asking Relevant Questions	-.06 (-.07)	.21 (.12)	-.04 (-.11)	--			
4.0 (4.0)	1.5 (1.48)	E. Answering Recruitees' Questions	.35 (.40)	.31 (.33)	.63 (.66)	.13 (.09)	--		
4.0 (3.9)	1.5 (1.47)	F. Establishing Rapport With Interviewees	.56 (.57)	.04 (.00)	.17 (.17)	.17 (.20)	.31 (.35)	--	

* Means, standard deviations, and correlations not in parentheses are the target numbers, those numbers in parentheses are the obtained numbers.

TABLE 3

Intended Performance True Scores for Ratees in the Recruiter and Manager Jobs

RECRUITER JOB

Dimensions	Ratees' (Actors') Intended True Scores							
	1	2	3	4	5	6	7	8
A. Creating A Favorable Image for the Company	3.5	2.0	7.0	4.0	2.5	5.0	3.5	5.0
B. Organizing the Interview	1.5	4.5	4.0	5.5	1.5	5.0	5.5	5.0
C. Providing Relevant Information About The Company	3.0	4.0	6.5	3.0	2.5	2.0	4.5	6.0
D. Asking Relevant Questions	6.0	5.0	3.5	6.0	1.5	3.5	3.0	3.5
E. Answering Recruitees' Questions	3.5	2.5	5.5	5.5	3.0	1.5	5.5	5.0
F. Establishing Rapport with Interviewees	4.5	1.5	4.5	5.5	3.5	4.0	2.0	6.0

MANAGER JOB

	9	10	11	12	13	14	15	16
A. Structuring and Controlling the Interview	3.0	4.5	6.0	2.5	5.0	2.5	2.0	6.0
B. Establishing and Maintaining Rapport	4.0	5.0	4.5	1.0	2.5	5.5	6.0	4.0
C. Reacting to Stress	2.5	4.0	5.0	4.0	1.5	4.5	3.5	6.5
D. Obtaining Information	2.0	6.5	6.0	5.0	3.5	3.5	2.5	3.5
E. Resolving Conflict	5.0	4.5	6.0	3.0	1.5	2.0	5.0	4.5
F. Developing Whipker	5.5	7.0	3.5	2.0	2.5	3.5	3.5	4.0
G. Motivating Whipker	6.0	5.5	5.0	2.5	2.0	5.0	2.5	3.5

Once at the studio, the actors went through two or three practice sessions. First, they simply read the script aloud. Then they added the gestures, voice inflections, etc.

A T.V. monitor displayed a picture of the script which the recruitee or subordinate could read. The monitor was situated just to the left of the interviewer or manager such that it did not appear on the camera screen and the interviewee or subordinate appeared natural on camera even though he may have been looking at his script rather than the interviewer or manager. The recruiter (or manager) had before him an open file folder containing sheets of paper that looked like they were pages of a resume (recruiter job) or part of a personnel file (manager job). They were, of course, pages of his script to which he could refer from time to time, pretending to be reviewing his materials. (See Figure 2 for the studio layout).

When the two actors could move smoothly and realistically through the script, a performance was videotaped. If the quality of the performance was sufficiently high, it was declared a "take". If the performance was not sufficiently natural-looking, wandered too far from the scripted behavior, or in some other way failed to depict the intended performance, another run was attempted. All performances but four were completed in one or two runs. One required four runs and in three cases, we selected new actors to perform the roles. In each of those three cases, a successful take with the new actor was accomplished in one or two runs.

3.4 Criterion Analyses

Final true scores were assigned to ratees on each dimension by expert raters who carefully analyzed the performance of each recruiter and manager. These expert judgments were "validated" first by assessing interrater agreement, second by depicting the convergent and discriminant validity of the ratings with an analysis of variance procedure, and third by correlating mean expert ratings with intended true scores. This section (3.4) describes the gathering of expert ratings and an evaluation of their validity.

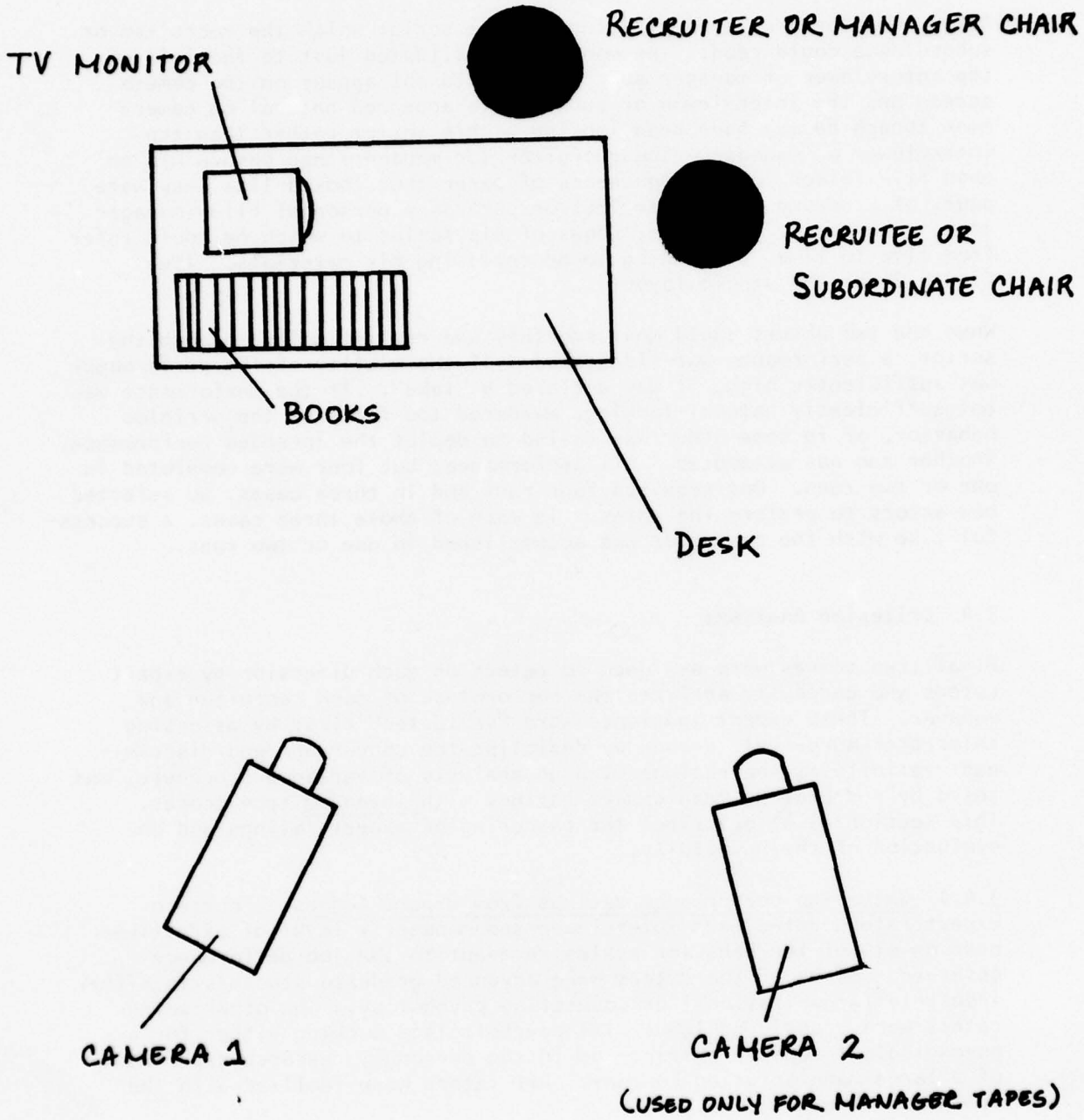
3.4.1 Gathering performance ratings from expert judges. Fourteen expert raters rated each interviewer and manager's level of effectiveness on all of the behavior scales relevant to the job performance observed. Seven of the raters were advanced graduate students in either industrial/organizational or counseling psychology. The other seven raters were practicing industrial psychologists working either for a psychological consulting firm[2] or in the personnel research department of a large manufacturing company. All raters were familiar with the demands of the two jobs.

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[2] Some of these industrial psychologists wrote scripts or acted in the videotaped performances, but none knew the means, standard deviations, or intercorrelations of the intended true scores, nor did they rate their own performances.

Figure 2

Studio Layout for the Videotaping Sessions



We very carefully prepared the experts for the evaluation sessions. Scripts[3] of the final performances were prepared and sent to the expert raters to study before attending the rating sessions. In addition to the scripts, we sent the experts the rating scales. We wanted these expert raters to be well prepared to make high quality ratings. They were urged to become thoroughly familiar with each script, even to take notes. During the rating sessions raters had ample opportunity to review notes and to think carefully about their ratings. We hoped that familiarity with the verbal performance and careful observation of the videotape performances would lead to highly informed and reliable expert ratings.

3.4.2 Interjudge reliability analyses. Interrater agreement among the 14 expert judges was computed for each dimension using intraclass correlations (Haggard, 1958). The intraclass indices are approximately equivalent to split-half reliability coefficients corrected upward by the Spearman-Brown formula. Thus, each intraclass correlation represents the reliability of the mean ratings for that dimension.

Intraclass correlations obtained appear in Table 4. They range from .91 to .98 with a median of .97, indicating that mean expert ratings on each dimension are extremely reliable. These results suggest that experts, as a group, made very stable estimates of recruiter and manager performance.

3.4.3 Analysis of variance assessment of the expert ratings' validity. An analysis of variance approach suggested by Kavanagh, MacKinney, and Wolins (1971) allows for an evaluation of rater (differential leniency), ratee (convergent validity), ratee x dimension (discriminant validity) and rater x ratee (halo error) effects. Kavanagh, et al. (1971) also introduced a method for computing variance components associated with the ratee, ratee x dimension, and rater x ratee sources of variance. These estimates yield information about the relative size of the various effects within the study. Finally, Kavanagh, et al. (1971) suggested indices appropriate for comparisons across studies. The index for one of these sources is formed simply by dividing its variance component by the same variance component plus error variance, yielding an intraclass correlation with a known confidence interval. (See Volume II of this report for a derivation of this confidence interval.) Fortunately, intraclass correlations are available from several other studies allowing a comparison of the results of this study with the results of other rating studies.

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[3] All references to gestures, inflection of voice, etc. - anything other than the words actually spoken were removed in order to ensure that experts received no extra cues about what kind of performance ratees were supposed to exhibit (see Appendix 2 for these "laundered" scripts).

TABLE 4

Interrater Agreement Among Expert Judges for Recruiter and Manager Ratings

RECRUITER JOB

Dimension	Intraclass Correlation	2-Rater Reliability
A. Creating A Favorable Image for the Company	.98	.88
B. Organizing the Interview	.97	.81
C. Providing Relevant Information About the Company	.96	.78
D. Asking Relevant Questions	.95	.73
E. Answering Recruitees' Questions	.98	.87
F. Establishing Rapport with Interviewees	.97	.82

MANAGER JOB

A. Structuring and Controlling the Interview	.98	.89
B. Establishing and Maintaining Rapport	.97	.82
C. Reacting to Stress	.91	.60
D. Obtaining Information	.98	.87
E. Resolving Conflict	.96	.76
F. Developing Whipker	.98	.90
G. Motivating Whipker	.97	.85

Table 5 depicts analysis of variance results for graduate students and professional psychologist expert raters separately and for the two groups combined. The desirable sources of variance--ratee and ratee x dimension are clearly significant in both rating sets. Unfortunately, the less desirable rater and rater x ratee sources of variance are also often signigicant. However, the variance components indicate that in both sets of data the desirable sources account for appreciably more of the variance than do the undesirable sources.

We computed the intraclass correlation indices using the method Kavanagh et al. (1971) suggested and compared the results with results obtained in other studies (see Table 6). Clearly, the ratings in this study possess as much, if not more convergent validity--ratee effect--as ratings in other field studies. More impressive, the intraclass correlations associated with the ratee x dimension and rater x ratee interactions indicate that considerable discriminant validity and little halo are present in these ratings compared to the results obtained in other studies. This is especially noteworthy because the discriminant validity criterion is particularly stringent when applied to performance ratings. The favorable ratee x dimension results indicate that in this study expert raters differentiated reliably a ratee's performance on each dimension from performance on all the other dimensions. Overall, the analysis of variance results indicate that the expert ratings possess considerable validity and utility for use as criterion measures.

3.4.4 Correlating expert ratings with intended true scores. As described previously, intended true scores were generated for each target ratee. Briefly these were the levels of effectiveness which actors tried to portray. Of course, the intended true scores probably did not reflect exactly the "true performance levels" of the performers because the scripts and the actors' depiction of those scripts were not perfect renditions of the intended true scores. Still, the care with which scripts were developed and the close correspondence between scripts and actual performances suggest that the effectiveness levels reflected by those performances should be very close to the intended true scores. Therefore, we used the intended true scores against which to assess the validity of the expert judges in perceiving performance on each dimension. We correlated the expert ratings with the intended performance levels (intended true scores) on each dimension across the eight ratees performing on each job.

Table 7 depicts "validity" results for each dimension on each job. When the expert mean ratings are correlated with intended true scores, validities are, in general, very high. The correlations, using mean ratings averaged across all experts, range from .42 to .97 with a median of .91. Neither graduate students nor professional psychologists are noticeably more "valid" raters than the other group.

Mean validity coefficients for individual raters also appear in Table 7. Though lower, they are also generally substantial.

TABLE 5

Analysis of Variance Results for Recruiter and Manager Ratings

RECRUITER JOB

Graduate Students (N=7)

Source	df	SS	F	p level	Variance Component	Intra-Class
A (Dimensions)	5	15.4	.36			
B (Raters)	6	27.1	4.21	.005		
C (Ratees)	7	500.1	97.57	.001	1.68	.70
A x B	30	12.3	.56			
A x C	35	298.3	11.64	.001	1.11	.60
B x C	42	45.1	1.47	.05	.06	.07
A x B x C	210	153.8				
TOTAL	335	1052.0				

Professionals (N=7)

A (Dimensions)	5	12.5	.32			
B (Raters)	6	33.4	3.78	.005		
C (Ratees)	7	324.7	58.50	.001	1.09	.58
A x B	30	27.8	1.17			
A x C	35	269.4	9.70	.001	.99	.55
B x C	42	61.7	1.85	.005	.11	.12
A x B x C	210	166.5				
TOTAL	335	896.0				

All Expert Raters (N=14)

A (Dimensions)	5	13.5	.18			
B (Raters)	13	61.7	3.35	.001		
C (Ratees)	7	802.6	147.28	.001	1.36	.64
A x B	65	54.3	1.07			
A x C	35	533.7	19.59	.001	1.03	.57
B x C	91	129.1	1.82	.001	.11	.12
A x B x C	455	354.2				
TOTAL	671	1949.2				

TABLE 5 (cont'd)

Analysis of Variance Results for Recruiter and Manager Ratings

MANAGER JOB

Graduate Students (N=5)

Source	df	SS	F	p level	Variance Component	Intra-Class
A (Dimensions)	6	28.1	.68			
B (Raters)	4	14.4	2.52	.07		
C (Ratees)	7	351.9	69.57	.001	1.42	.66
A x B	24	13.3	.77			
A x C	42	287.2	9.46	.001	1.22	.63
B x C	28	40.1	1.98	.005	.10	.12
A x B x C	168	121.4				
TOTAL	279	856.4				

Professionals (N=4)

A (Dimensions)	6	15.0	.63			
B (Raters)	3	9.8	1.67			
C (Ratees)	7	370.8	77.67	.001	1.87	.73
A x B	18	18.2	1.48			
A x C	42	167.7	5.86	.001	.83	.55
B x C	21	41.1	2.87	.001	.18	.21
A x B x C	126	85.9				
TOTAL	223	708.5				

All Expert Raters (N=9)

A (Dimensions)	6	30.8	.52			
B (Raters)	8	24.3	1.82			
C (Ratees)	7	710.1	138.55	.001	1.60	.69
A x B	48	43.8	1.25			
A x C	42	416.3	13.54	.001	1.02	.58
B x C	56	93.7	2.29	.001	.13	.16
A x B x C	336	246.0				
TOTAL	503	1565.0				

TABLE 6

Variance Component Indices for Five Studies

Study	Types of Raters	Variance Component Indices: Ratee Effect	Ratee x Dimension Interaction	Rater x Ratee Interaction
Lawler (1967)	superior-peer	.63	.40	.31
	superior-self	.36	.19	.44
Kavanagh, MacKinney, and Wolins (1971)	superior-subordinate (all dimensions)	.44	.13	.50
	traits only	.56	.15	.62
	performance dimensions only	.44	.13	.50
	five selected dimensions only	.66	.17	.60
Boruch, Larkin, Wolins & MacKinney (1970)	subordinates	.40	.20	.43
Schneier (in press)	peers (all dimensions)	.59	.16	.09
	5 personal criteria	.69	.31	.21
	5 performance criteria	.51	.08	.01
Present study-Recruiter Ratees	expert raters	.64	.57	.12
	student raters	.53	.28	.27
Present study-Manager Ratees	expert raters	.69	.58	.16
	student raters	.52	.25	.26

TABLE 7
"Validity" Correlations Between Experts' Ratings and Intended True Scores

RECRUITER JOB

Dimension	Graduate Student Mean Ratings (N=8)	Professional Mean Ratings (N=8)	All Experts' Mean Ratings (N=8)	Median Validity for Individual Expert Raters	Range of Validity Coefficients for Individual Expert Raters
A. Creating A Favorable Image for the Company	.89	.94	.93	.84	.68 - .98
B. Organizing the Interview	.82	.74	.78	.71	.41 - .86
C. Providing Relevant Information About the Company	.92	.90	.92	.83	.45 - .90
D. Asking Relevant Questions	.57	.71	.67	.57	.09 - .94
E. Answering Recruitees' Questions	.96	.96	.97	.87	.74 - .96
F. Establishing Rapport with Interviewees	.97	.88	.94	.79	.61 - .98

MANAGER JOB

A. Structuring and Controlling the Interview	.71	.76	.76	.74	.40 - .86
B. Establishing and Maintaining Rapport	.87	.92	.92	.82	.58 - .93
C. Reacting to Stress	.41	.39	.42	.30	-.31 - .65
D. Obtaining Information	.66	.65	.66	.59	.36 - .83
E. Resolving Conflict	.63	.70	.70	.52	.43 - .91
F. Developing Whipker	.96	.96	.96	.90	.77 - .97
G. Motivating Whipker	.87	.92	.91	.84	.54 - .96

Unfortunately, one cannot be sure whether the discrepancy from perfect validity is due to inaccurate ratings or to certain actors portraying performance levels different from intended true scores. Still, the magnitude of the validity coefficients suggests that mean ratings closely mirror the intended true scores for 9 of the 13 dimensions. Further, the high interrater agreement among the experts suggests that the actors departed from the intended true scores on the dimensions with lower "validities."

In sum, the high interjudge agreement (see Section 3.4.2) and generally good validity evidence (see Section 3.4.3 and 3.4.4) argued for using mean expert ratings as the criterion true scores for subsequent data analyses. Thus, we used mean expert ratings to evaluate student subjects' ratings.

3.5 Developing the Minnesota Person Perception Battery (MPPB)

MPPB items and scales were developed to tap personality, interest, ability, demographic, and life history variables which the literature review suggested might be related to interpersonal perception ability and, more specifically, to the ability to rate human performance.

Scales and items selected for the MPPB are included in Appendix 3. In addition, the following inventories or item sets were developed specially for the MPPB (they also appear in Appendix 3): a) the Janz Perception Inventory; b) the Revised Kelly Reperatory Grid (Kelly, 1955) and; c) the Biographical and Preferences Inventory. Below are the development steps for each:

3.5.1 Janz Perception Inventory. Two Person Perception scales were developed as a result of an attempt to define constructs relating to how a person evaluates others. Twenty-two items were written to tap the following areas: a) generalized leniency, toughness; b) differential elevation--much vs. little variation among others; c) use of stereotypes; d) perceived similarity to others; e) physiological response to rating others; and f) affect towards rating others.

Appendix 4 contains the final questionnaire (titled "Person Perception Inventory") which has the same instructions and item format as did the 22 item pilot questionnaire. Each of the 22 items consisted of a question and three statements. The three statements were written to represent high, medium, and low positions on the trait hypothesized to underly the question. Janz developed complex scoring systems for the format, but we elected to use a simple three-point scoring rule (i.e., 1 = low; 2 = medium; 3 = high) for each item for purposes of this study.

The pilot questionnaire was administered to 50 introductory psychology students. An alpha factor analysis discovered only two factors that had acceptable reliabilities (Cronbach's alpha greater than .60) using pilot data. The first (5 items) related to seeing other persons as similar to each other. The second (4 items) related to affect towards evaluating others and physiological responses to rating. Subjects who liked rating others also reported little nervousness while doing so. Based on these findings, more items were written to tap the two factors and items not loading substantially on one of the factors were dropped. The Person Perception Inventory is the final result.

3.5.2 Revised Kelly Repertory Grid. Kelly (1955) designed a grid "test" which requires a subject first to identify persons who are in certain roles in relation to him/her (e.g., mother, best friend, etc.). Then, the subject looks at various triads of role persons and for each triad identifies the personal characteristics or construct that two of the persons have in common but that differentiates them from the third person. In this manner, several "personal constructs" may be elicited from the subject. Presumably, these constructs are important elements in portraying the subject's relationships. Kelly and others (e.g., Bannister, 1975; Bannister and Mair, 1968; Landfield, 1975) have used the Rep Grid in a clinical setting to help illuminate patients' maladaptive constructs and to aid them in seeing how they view other persons. Some of Kelly's followers (e.g., Glossop, Roberts, and Shemilt, 1975; Lemon and Warren, 1974) have used the Rep Grid to identify subjects' personal constructs and, then, to assess such things as individual difference in construct content, cognitive complexity of individual subjects, and the relationship between meaningfulness of constructs and the polarity of ratings.

We developed a modified form of the Kelly Rep Grid. Sixteen roles were selected and placed on the form. For each role a subject identified one person who occupied that role. Then, the subject rated each of these persons on eight evaluative bipolar scales (e.g., outgoing-shy, adjusted-maladjusted, etc).

One of the indices derived from these ratings was a measure of halo. This was obtained by computing for each subject the mean correlation[4] among scales, high scale intercorrelations indicating high halo and low intercorrelations indicating low halo. Also derived from the ratings was a "least preferred person" score (LPP) similar to Fiedler's (1964) LPC index. An LPP score for a subject was computed simply by summing across all the persons the subject did not like, the ratings coded in the socially desirable direction. Thus, a low LPP score suggests that the subject ascribes relatively few socially desirable qualities to persons he/she dislikes. Higher LPP scores indicate that the subject ascribes socially desirably personal characteristics to persons he/she dislikes.

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[4]Fisher r to z transformations were used in computing these means.

3.5.3 Biographical and Preferences Inventory. Staff members prepared 24 items which asked subjects about their past history and about various personal characteristics thought to be related to person perception. Items were developed for five different categories. These categories were: a) effort expended on tasks or jobs, attention span, and problem solving style; b) social contact style in childhood through high school, leadership experience, and present sociability; c) experience in evaluating or rating others; d) detail orientation; and d) demographic items (e.g., age, sex, etc.).

Each category consisted of from two to eight items thought to relate to person perception ability.

Also included in this inventory was an item asking subjects to rank order their vocational interests using Holland's six theme framework. The themes are realistic, investigative, artistic, social, enterprising, and conventional.

3.6 Description of the Student Sample and Procedures

Two hundred fifty-eight persons volunteered for this person perception experiment. Prior to participating, subjects were told that they would receive $5 for the first session and that some would be selected for a second and third session for which they would receive $4 per session. All but three or four persons in the sample were students at the University of Minnesota.

The 258 persons attended sessions in groups of 25-60. The same PDI staff member administered the MPPB to all groups. During these sessions, subjects were told they would be given feedback about their MPPB scores if they wanted it, and again that they might be selected for the second and third sessions.

We then screened persons for sessions 2 and 3, the performance rating sessions, using their MPPB scores. The strategy was to select subjects such that for each variable the variance of the scores of this smaller group was maximized. Our reasoning was that though ample variation in individual differences within college populations does exist in terms of the range, representative sampling from a college population results in a very large modal group. Such distributions could potentially distort our results. Therefore, we elected to over-represent the extremes and underrepresent the middle of the distributions of scores for each MPPB measure. Thus we planned to select 150 individuals (from the 258) which as a group would be more heterogeneous than the usual college sample.

We used the following procedure to select the 150 subjects: first we scored each subject's MPPB on the 91 separate variables. Then, an X^2 procedure[5] was used to rank order subjects according to their scores' deviations from the total groups' mean scores. Staff members invited to sessions 2 and 3 the 150 persons with the highest X^2 scores. When several of these persons were unable to attend the sessions, we contacted those with the next highest X^2 scores.

One hundred forty-six subjects did attend the rating sessions. Standard deviations on the 91 MPPB variables for the group of 146 were uniformly higher than the corresponding standard deviations for the unselected group of 258, an indication that the X^2 subject selection procedure worked well.

The 146 persons attended the rating sessions in groups of 7-18, the usual size was 13-15 per session. Each subject attended two sessions, one in which he or she viewed recruiter tapes and the other in which he or she viewed manager tapes. The order of viewing jobs was counterbalanced; approximately half the subjects viewed and rated recruiters first while the remaining subjects viewed and rated managers first. Within each session the eight taped performances were presented in random order. This procedure eliminated any position effect that might have occurred across sessions.

At the beginning of each session, the administrator, a PDI staff member, explained the duties of the job which was about to be viewed and talked about each of the rating scales. She stated that the job of manager or recruiter was defined by the content of the rating scales and that effectiveness should be judged by referring carefully to these performance dimensions. She explained how to use the behavior based scales and described the procedures to be followed during the rating session.

After the explanations were completed, subjects viewed the first tape and rated the performer, a recruiter or manager, on all scales relevant to the particular job being observed. Next, the subjects viewed the second tape and rated the performer's effectiveness on the rating scales. This procedure was followed for all eight job performances. Approximately one week later, subjects returned to view the taped performances of the other job.[6] The administrator followed the same procedure during the second rating session.

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[5]See Appendix 4 for details of this procedure.

[6]Except for two or three cases in which subjects missed a scheduled session, the membership in each group was the same for both sessions 2 and 3.

At the end of the second rating session, the administrator asked subjects to complete a four item questionnaire. Three of the questions inquired about the "state" of the individual during the rating session. The questions were:

1) Please describe (frankly) your feelings about the rating task.

__ I enjoyed it.
__ I enjoyed most of each session, but they got pretty old near the end.
__ I neither enjoyed nor especially disliked the task.
__ I disliked the task; it was too repetitive and boring.

2) How hard did you try to be accurate in your evaluations?

__ I did my best the whole way through.
__ I tried hard for most of each session, but let down on a few of the performances.
__ I tried fairly hard.
__ I did not concentrate very much on the task.

3) I felt the length of the rating session was . . .

__ about right
__ a little too long
__ much too long

A fourth item asked respondents to predict how accurately they had rated videotaped performers. The "state" questions were used subsequently to index in an approximate fashion the amount of variance in rating accuracy accounted for by subjects' reactions to the rating sessions

3.7 Developing Predictor Composites from Responses to the MPPB

Our goal here was to represent as comprehensively and as parsimoniously as possible a wide range of MPPB variables. Thus, a factor analysis was employed to form composites, each serving as a summary construct of several variables measured by the MPPB. Although the relationships between individual items/scales on the MPPB and various rating data were also subsequently examined, the composites allowed for a summary of these relationships.

Before factor analyzing responses to the MPPB, certain variables were collapsed or removed. For example, the Adjective Check List (ACL) administered as part of the MPPB consists of 18 scales, some of them highly correlated (Gough & Heibrun, 1965). Since the ACL measures only one part of the total domain we sought to include in the MPPB and yet constitutes 18 of the 91 MPPB

variables, we wanted fewer ACL dimensions represented. Therefore, we factor analyzed correlations among ACL scales using a principal component factor analysis. The magnitudes of the eigenvalues of several factor solutions were then examined and the two solutions with eigenvalues all above 1.0 (the Kaiser criterion) retained for further analysis. These solutions, one containing two factors, the other three, were rotated to the varimax criterion and the three factor solution selected as most psychologically meaningful. That solution appears in Table 8. The factors were labeled a) dominant, self-confident, achievement oriented; b) interpersonally oriented, nurturant, affiliative, but controlled and reflective; c) flexible, impulsive, spontaneous.

In addition, several variables were excluded from the factor analysis of the MPPB because of certain mathematical dependencies on other variables. For example, the assumed similarity of opposites measure (ASO), computed by subtracting the mean of the ratings made of disliked persons from the mean of ratings made of liked persons in the modified Kelly protocol, is definitely dependent upon MPP and LPP scores. In this and in other cases where such dependencies occurred, the variable considered most important was retained, and the other mathematically dependent measures removed. When these two operations were completed, 57 variables remained.

Scores on the resulting 57 variables were intercorrelated and factor analyzed. Two to 20 factors were extracted with each solution rotated to the varimax criterion. The 18 factor solution was selected as most psychologically meaningful. Fourteen of these 18 factors were interpretable; the solution appears in Table 9. We named the 14 factors as follows:

I	Friendliness; consideration; interpersonal orientation.
II	Organization; hard work.
III	Freedom from self-doubt and disillusionment; acceptance of others; tendency not to worry or become stressed.
IV	Dominance, decisiveness, and perception of self-competence; achievement motivation.
V	Conventional versus artistic interests.
VII	"Old age"; experience in evaluating other's performance as well as interest and involvement in the process.
IX	Preference for dealing with things rather than people; realistic versus enterprising interests.
X	Youngest in the family.

TABLE 8

Varimax Rotated Factor Solution for the 21 Adjective Check List Scales

ACL Variables	Communalities	Factors I	II	III
1. Defensiveness	.83	.50	.76	.03
2. Self-confidence	.80	-.84	.06	-.30
3. Self-control	.82	-.12	-.76	.49
4. Lability	.54	-.05	-.03	-.73
5. Personal Adjustment	.73	-.27	-.81	-.01
6. Achievement	.82	-.84	-.31	.14
7. Dominance	.89	-.92	-.12	-.15
8. Endurance	.87	-.62	-.51	.47
9. Order	.83	-.48	-.43	.64
10. Intraception	.65	-.28	-.76	.02
11. Nurturance	.86	-.06	-.88	-.30
12. Affiliation	.74	-.33	-.71	-.35
13. Heterosexuality	.59	-.23	-.21	-.70
14. Exhibition	.73	-.51	.40	-.56
15. Autonomy	.79	-.52	.76	-.20
16. Aggression	.85	-.25	.88	-.12
17. Change	.59	-.14	.21	-.73
18. Succorance	.54	.69	.24	.00
19. Abasement	.80	.83	-.28	.20
20. Deference	.87	.54	-.68	.33
21. Counseling Readiness	.49	.00	.42	.55

TABLE 9

VARIMAX ROTATED FACTOR SOLUTION FOR 57 SELECTED MPPB VARIABLES

	Variable Names[a]	Communalities	Factor Loadings																
			I	II	III	IV	V	VI[c]	VII	VIII[c]	IX	X	XI	XII	XIII	XIV[c]	XV	XVI	XVII	XVIII[c]
1.	EVAL. EXPER.	512[b]	-09	08	15	17	12	-03	55	-06	-07	-07	-08	16	-12	-16	-07	08	05	-18
2.	YOUNG BROTH./SIST.	687	-07	06	02	11	-00	-10	-01	08	-02	76	08	-08	-12	-08	17	02	05	07
3.	OLD BROTH/SIST.	674	-07	-00	-04	07	04	-07	-07	-02	02	-77	06	-04	-10	-12	05	03	03	15
4.	GROUP LEADER	601	-17	03	00	32	-02	-10	03	-00	06	-04	-08	05	17	-05	-11	06	-63	01
5.	HS GPA	769	-11	23	-11	08	19	02	-32	06	-04	05	-07	07	71	-06	04	10	-01	-05
6.	AGE	718	04	01	-16	-06	01	03	78	05	01	13	10	07	-09	08	02	07	01	15
7.	FRIENDS H.S.	635	-17	02	-01	13	-02	11	-05	-09	-09	03	05	11	-06	05	02	01	-73	-10
8.	SELF PERCEP. ORG.	622	-09	67	-04	18	03	03	-01	-03	-09	04	-20	-04	04	17	-12	13	-06	-15
9.	TASK INVOLV.	745	-03	16	-17	04	-11	05	01	12	06	-11	10	11	-08	06	-02	77	10	-07
10.	DETAIL ORIENT.	700	04	18	-02	04	00	-02	-01	06	-02	-08	07	01	03	-06	-80	05	-06	05
11.	NOTICE THINGS	599	-19	-15	21	19	-26	-06	15	-04	17	-01	-27	-01	13	-29	-39	09	-06	-01
12.	IMPORT. OF EFFORT	651	-21	-02	16	19	11	-04	12	-16	09	-03	-18	-06	06	20	-15	58	-16	-10
13.	COMFORT BEING ORG.	648	-05	55	23	-11	13	-06	24	04	26	-03	-03	-05	-09	26	17	02	-00	17
14.	FIRST IMPRESS RIGHT	708	-23	15	-04	09	-21	-04	20	31	12	03	15	-07	23	-15	04	19	10	-53
15.	LIKE ARND. PEOPLE	717	-14	-04	-12	-04	15	-11	-04	-10	-03	11	-08	15	-15	-06	00	-02	-14	-74
16.	LIKE DETAIL	705	-10	08	-01	01	09	-06	05	08	04	-01	11	-01	-04	31	-71	23	06	-05
17.	SLEEP	434	12	15	19	-12	-12	03	-16	10	28	-13	06	-12	-09	04	09	-25	-32	05
18.	CARE REASON.	587	02	64	-14	13	00	-08	-10	-06	-12	-01	18	-09	00	-24	-08	03	-01	-03
19.	DOESN'T BOTHER	638	15	-18	04	-05	-05	01	04	-05	07	-07	-02	10	03	-70	12	-18	02	-12
20.	SELF MONITERING	590	07	-16	23	-02	14	-06	-01	-00	08	-00	03	67	03	-03	-05	08	-12	-05
21.	HALO I	689	-33	12	14	24	05	-50	-02	-07	06	-01	36	14	12	06	-01	-20	17	-02
22.	MPP	729	-77	00	-04	19	-05	03	-11	-14	08	03	12	-01	15	04	05	-03	00	-07
23.	LPP	896	-06	-07	-05	-08	-05	92	03	01	-03	01	-02	-10	01	01	02	00	-08	07
24.	D-NOT FRIENDS	803	-31	-06	-07	-04	-05	-80	04	-03	04	04	-13	-02	-01	-00	-07	17	-07	-03
25.	D-ADMIRED	676	31	-15	20	-48	-10	-12	11	-19	20	06	00	-18	30	-07	-02	01	-18	11
26.	OUTGOING	694	-32	-14	-03	53	-03	-10	09	20	13	-01	01	34	04	03	10	01	-22	-20
27.	ADJUSTED	651	-45	16	-32	47	-07	-03	-06	-07	-03	-10	17	-11	-05	-06	-05	14	-07	03
28.	DECISIVE	650	-15	15	-13	66	-07	-00	-01	-11	11	14	-01	-07	-00	-04	03	30	08	07
29.	FRIENDLY	669	-64	-20	-11	04	-16	-15	11	08	02	-07	-11	03	-10	15	09	10	-21	-17
30.	INT. IN OTH.	683	-69	-04	-09	01	-04	-11	03	02	-04	-01	-31	01	-04	08	-01	09	-04	-28
31.	CHEERFUL	664	-66	-03	-17	07	06	-13	-17	01	02	11	06	06	-26	-08	-11	14	-15	06
32.	DO	638	11	01	12	72	03	-10	04	08	04	-07	01	09	-00	10	-08	-03	-20	-08
33.	CONSID.	624	-72	07	-05	-09	07	-03	11	01	06	-05	-20	-05	10	04	-10	-03	-09	04
34.	CPI-TO	725	-10	-01	-75	-02	-12	16	-00	-04	08	-01	-01	11	27	07	05	01	-05	-04
35.	CPI-WB	733	-17	07	-81	11	-06	-04	02	-11	01	-06	-03	-03	03	07	00	-03	-03	-09
36.	CPI-SP	732	01	-29	-29	31	-17	03	13	-17	02	-02	-06	61	-00	-02	-05	-08	-05	-06
37.	EMP (HOGAN EMPATH.)	681	-09	-11	-27	08	-26	-13	16	08	04	-02	-14	64	06	-09	05	04	-07	-12
38.	SELF-COMP.	633	-28	08	-17	46	-13	-09	18	-00	14	02	12	-06	30	-02	-26	24	-06	-04
39.	ACC. GEN. OTHER	718	-07	27	-05	-04	-05	04	01	-77	-00	-03	12	11	03	04	-04	-08	02	-08
40.	HEDGE	630	-01	04	09	-01	-01	09	-05	74	-01	07	04	07	08	09	-16	-07	07	-05
41.	VERB. REAS.	574	28	-06	-16	03	-17	03	-06	16	08	-06	01	30	49	-10	-16	-08	-09	12
42.	STRESS	783	06	-04	80	-32	01	03	-08	01	18	-03	03	-00	03	04	03	-03	-10	00
43.	AUTHORIN	715	-02	09	13	29	10	-16	07	-02	-08	11	03	-00	14	02	-22	68	-07	09
44.	HD. WK.	758	05	74	-19	04	12	-02	04	-12	-02	01	-02	-29	08	15	-11	10	-05	05
45.	IMPLSNS	658	25	-23	-11	-04	-27	07	-00	-18	01	-08	06	43	12	26	12	-03	28	24
46.	ABSORBS	673	-32	-08	34	-00	-31	01	10	-03	-10	-12	-11	39	01	-30	-03	17	09	16
47.	JANZ-1	591	-04	10	13	-27	16	02	-48	17	-05	07	19	05	-08	06	27	01	00	28
48.	JANZ-2	585	-36	07	-17	-21	31	25	09	04	03	05	22	11	-00	-06	15	-01	-35	-02
49.	REALISTIC THEME	721	13	10	01	-06	12	09	01	-02	-78	-01	21	-09	-07	-03	03	02	-05	-08
50.	INVESTIGATIVE THEME	699	05	-11	-08	-06	-17	-06	14	-08	-48	-08	11	-15	52	19	-01	05	05	21
51.	ARTISTIC THEME	793	-00	-10	-02	-05	-80	05	-12	05	15	13	-04	16	-17	-04	-04	-11	-03	05
52.	SOCIAL THEME	730	-27	09	-12	-01	-13	-04	-01	07	09	-01	-74	12	00	-04	17	-06	05	-05
53.	ENTERPRIZING THEME	769	05	-07	09	16	32	-04	06	-08	67	-10	31	-01	-10	-10	-05	16	-04	-13
54.	CONVENTIONAL THEME	678	02	13	12	00	72	02	-09	08	24	09	08	-02	-18	03	-09	-07	03	00
55.	DOM-ACH	744	13	08	-32	72	13	-00	08	-02	-00	05	-06	06	06	-04	-00	16	-17	11
56.	INTERPERS.	740	-41	31	-52	-23	18	-07	09	05	-14	-05	-07	-04	-13	-16	-10	11	10	07
57.	CHANGE	692	-32	-53	-10	03	-15	-12	01	15	-00	-10	-02	39	-11	-13	18	07	-04	-06

a. For definition of these variables, see Appendix 3

b. Decimal points for communalities and for factor loadings have been omitted.

c. Factors VI, VIII, XIV, and XVIII were seen as uninterpretable and dropped from further analysis.

XI Social interests; interest in observing others.

XII Sensitivity and social responsibility; being interpersonally attuned; impulsiveness.

XIII Intelligence, high grades, and investigative interests.

XV Detail orientation.

XVI Task involvement; endorsement of strict discipline.

XVII Number of friends and leadership in high school; self-perceived similarity to others.

Since the intent here was to summarize and not necessarily eliminate measures, we examined the 18 factor solution for variables that were reliably measured but not well represented within any of the 14 factors defined above. Two measures were identified in this manner: a) Gough's 40-item scale tapping accuracy in perceiving the opinions of people in general and b) the LPP measure derived from the Kelly Rep Grid ratings. Both measures possessed good reliability and correlated minimally with the factors; therefore, we added these two variables to the summary predictor set. The resulting 16 variates accounted for approximately 60 percent of the variance in the total 57 x 57 correlation matrix and reflected a parsimonious and nearly orthogonal summary of the 57 variables.

CHAPTER 4

RESULTS

In this section we report the distributions of accuracy and rating error scores and their within- and across-job stability. Second, relationships between MPPB responses and performance rating accuracy as well as the three rating errors are presented. Finally, we describe the effects on accuracy and the effects on two rating errors of pooling performance ratings in various ways.

4.1 Investigating Rating Accuracy and Three Rating Errors

Cronbach's differential accuracy measure provided the index of accuracy in perceiving other's performance. Halo, restriction of range, and leniency/ severity were the three indices of rating errors studied. These measures are described below.

4.1.1 Computing indices for rating errors. (a) Accuracy--The differential accuracy (DA) measure (Cronbach, 1955) provided accuracy scores for each rater on each job dimension. The DA for a rater on a dimension was computed by correlating his/her ratings of the eight videotaped target persons on that dimension with mean true scores provided by the expert judges. The Fisher r to z transformation was then applied to each DA correlation. Each rater, therefore, had a total of 13 accuracy scores, six for the recruiter job and seven for the manager job (see Appendix 5 for the formal mathematical definitions of accuracy, also, restriction of range and leniency). (b) Halo--Halo was conceptualized as the tendency for raters to restrict their performance ratings of a single target person to a narrow range of effectiveness on the several job dimensions. Thus, for each rater a standard deviation was computed for each target ratee, thereby reflecting the spread in those ratings across dimensions. The smaller the standard deviation across dimentions the greater the halo. These computations yielded eight halo scores for a rater on the recruiter job (one for each ratee) and eight such scores for each rater on the manager job (again one for each ratee). (c) Restriction of range--Restriction of range was conceptualized as the tendency for raters to restrict their performance ratings of all target persons (of a given job) to a narrow range of effectiveness on a single dimension. Like halo, restriction of range was defined as a standard deviation, but this standard deviation was computed across ratees on each dimension. The smaller the standard deviation, the greater the restriction in range. Each rater had 13 restriction of range scores, six for the recruiter job (one for each dimension) and seven for the manager job (again, one for each dimension). (d) Leniency/severity--As in Crow and Hammond's research (see p. 50 of this report) leniency/severity was treated as a rating level effect. Therefore, for each rater we calculated his/her mean rating of each ratee across the dimensions, providing eight leniency/severity scores for a rater on the recruiter job (one for each ratee) and eight leniency/severity for each rater on the manager job (again, one for each ratee).

4.1.2 Evaluating the reliability of rating accuracy and the three rating errors. Rating data from this study enabled us to examine both "within-job" (i.e., recruiter and manager) reliability and "across-job" reliability of accuracy and rating errors. In assessing within-job reliability of accuracy, we asked the question: If a subject is accurate in his/her ratings of ratees' performances on one dimension, what is the likelihood that the subject will be accurate in evaluating ratees' performances on other dimensions of that job? High reliability of accuracy indicates that subjects who are accurate in their ratings on one dimension of a job tend to be accurate in their ratings on other dimensions of the same job; also, subjects less accurate in their ratings on one dimension of a job tend to be inaccurate in their ratings on other dimensions of that job. Low reliability of within-job accuracy means that a particular accuracy score for a subject on one dimension tells us little about his/her accuracy on other dimensions of the same job.

We asked the same question to assess within-job reliability analyses of halo, leniency/severity, and restriction of range. With restriction of range, for example, we wanted to know how consistently subjects spread out (or restrict) their ratings of ratees' performances on the dimensions of the job. High reliability indicates that this rating tendency is stable within-job--i.e., subjects who restrict the range of their ratings on one dimension tend also to restrict their ratings on other dimensions within the same job.

Within-job reliability for each of the four measures - accuracy, halo, leniency/severity, and restriction of range - was evaluated using an analysis of variance approach that compares the variation in scores of individual subjects to the variation in scores across subjects. With accuracy, for example, each cell in the design consists of the six (or seven) accuracy scores for each subject (on one of the jobs). Variation in scores within cells is then compared to variation in scores across all cells by computing an intraclass correlation coefficient (Haggard, 1958). Two such intraclasses were computed, one for the recruiter job and one for the manager job. In a similar fashion, two within-job reliability estimates (i.e., one for each job) were computed for each of the three rating errors. These coefficients can be interpreted as the reliability of subjects' mean within job accuracy and rating error scores.

Across-job reliability analyses focus on the question of consistency in accuracy and in committing the three rating errors across the two jobs. High across-job reliability for accuracy, for example, indicates that subjects accurate in rating performance on one job also tend to be accurate in rating performance on the other job; low reliability means that being accurate in rating performance on one job has little to do with being accurate in rating performance on the other job. Similarly, across-job reliability of the three rating errors indicates that subjects tend to be consistent in either committing or resisting these errors across jobs.

Again, the intraclass correlation, an analysis of variance approach that compares the variation in scores of individual subjects to the variation in scores across subjects, was used to evaluate the across job reliabilities of accuracy and rating error scores. With accuracy, for example, each subject's mean accuracy score on each of the two jobs was computed. The variation in these mean accuracy scores (i.e., the within subject variation for both jobs) was computed to the total variation in the accuracy scores across all subjects (i.e. the across subject variation for both jobs). Four such intraclass coefficients were computed, one each for accuracy, halo, leniency/severity, and restriction of range. Each intraclass coefficient can be interpreted as representing the reliability of the pooled (across-job) scores associated with that measure.

Table 10 shows the means and standard deviations of subjects' accuracy and rating error scores. The diagonals in Table 10 depict within-and across-job reliability for accuracy and for each rating error.

The off-diagonal entries in Table 10 indicate that the rating errors of halo, leniency/severity, and restriction of range are reasonably independent. The highest correlation among these scores is between halo and restriction of range total scores ($r = .23$). Further, accuracy is not correlated substantially with any of the rating errors. Surprisingly, even restriction of range and halo have low relationships with accuracy, indicating that a relative failure to differentiate between dimensions or target persons has little to do with correctly rank ordering individuals' peformances.

TABLE 10

Within- and Across-Job Means, Standard Deviations and Reliability Coefficients for Accuracy and Three Rating Errors

(N = 146)

WITHIN-RECRUITER JOB SCORES

M	S.D.		Halo	Leniency	Restriction of Range	Accuracy
1.12	.22	Halo	(.62)[a]			
3.69	.47	Leniency	.09[b]	(.61)		
1.73	.22	Restriction of Range	.16	.13	(.69)	
.89	.23	Accuracy	-.12	.12	.12	(.60)

WITHIN-MANAGER JOB SCORES

1.13	.18	Halo	(.54)			
4.06	.36	Leniency	-.05	(.43)		
1.68	.19	Restriction of Range	.19	.05	(.69)	
.91	.24	Accuracy	-.18	-.13	-.13	(.65)

ACROSS-JOB SCORES

1.12	.18	Halo	(.72)			
3.89	.32	Leniency	.08	(.32)		
1.71	.17	Restriction of Range	.23	.07	(.58)	
.90	.19	Accuracy	-.17	.00	-.01	(.46)

[a]Diagonal entries in the three matrices are intraclass correlation coefficients. Each is significantly different from zero at the .01 probability level.

[b]Off-diagonal elements contain Pearsonian rs; $p_{.05} = .16$, $p_{.01} = .21$.

Because the magnitude of the reliability indices in Table 10 depends somewhat upon the way scores are pooled, the within- and across-job coefficients are not directly comparable. To make these comparisions, nonparametric randomization tests were used.[7] These tests showed that accuracy and two of the three rating errors were significantly more consistent within-job than across-job. Only the rating error halo appears to generalize from one job to another.

What do the reliability results presented in Table 10 mean for the study of person perception? In particular what do they say about the appropriateness of trying to identify individual differences that might be associated with an "ability" to perceive performance effectiveness accurately?

Before answering these questions the present reliability results need to be compared to the results of other person perception studies that have computed such reliability estimates.

Accuracy. Regarding the reliability of accuracy in person perception, Grossman (1963) asked subjects to rate six target persons on 38 personality and demographic variables. Using target persons' self-reports as criteria and a measure of differential accuracy (Cronbach, 1955), he obtained accuracy scores for each subject on each of the six ratees. Reliability of these scores across target persons was .60, when corrected upward by the Spearman-Brown formula. Bronfenbrenner, Harding, and Gallwey (1958) also used self-reports as criteria and differential accuracy to determine accuracy of ratings. Raters who had interacted with ratees in small groups for four hours rated those individuals on 12 personality dimensions. Differential accuracy scores were computed. The reliability of these accuracy scores for raters across target persons was close to zero.

In contrast, Cline (1964) obtained substantial reliabilities across target persons. He had student subjects predict each of ten filmed target person's responses to five different surveys and rating forms. An accuracy score was computed for each subject using half of the films and a separate accuracy score was calculated for each subject on the remaining films. Computing correlations between the two sets of films for each of the five different judgment tasks resulted in within-rating task correlations ranging from .66

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7 Two 13 x 13 matrices were formed, one for accuracy and one for restriction of range, by correlating scores (e.g., accuracy) on each dimension with the scores on the other 12 dimensions. Each matrix, therefore contained 36 within- and 42 across-job correlations. A randomization test was then applied to each matrix. Essentially, each randomization test compared (a) the difference between the mean within job correlation and the mean across job correlations and (b) the distribution of such differences obtained when columns of the 13 x 13 correlation matrix were randomly permuted 1,000 times. Likewise two 16 x 16 matrices were formed, one for halo and one for leniency, by correlating scores (e.g., halo) or each ratee with the scores associated with the other 15 rates. Randomization tests analogous to the ones done on the 13 x 13 matrices were then performed on each of the two 16 x 16 data matrices.

to .79. In later studies Cline computed reliability coefficients across rating tasks; 38 across-rating task correlations from these studies range from .03 to .65 (median r = .34). However, comparing Cline's reliability coefficients with reliability coefficients obtained in other studies must be done with caution; Cline did not employ differential accuracy (DA) as the accuracy index in these studies. Consequently, various rating response biases may have increased the magnitude of these relationships.

Crow and Hammond (1957), using a special index of non-parametric DA, reported somewhat lower reliabilities. They had subjects serve as both raters and ratees. That is, subjects rated themselves on three traits and then predicted a) other subjects' ratings of them, b) other subjects' self-ratings, and c) group means of each subject on the three traits. These data allowed for within-rating task reliability estimates of the accuracy scores for each of the three rating tasks. The magnitude of those nine correlation coefficients was between .02 and .39 with a median correlation of .12. In another study they (Crow and Hammond 1957) found slightly higher reliabilities for accuracy. Reliabilities ranged from .10 to .38 (median r = .24).[8] Finally, Crow and Hammond's across rating task reliabilities were in general very low (median r = .01).

Overall, with a few notable exceptions, previous studies have shown reasonably good within-task reliability for accuracy in person perception; the stability of the rating accuracy "ability" both across dimensions and across target persons has often been in the 60's. Results obtained in the present study are similar. Within-job reliability coefficients of .60 and .65 suggest that the "ability" to rate performance effectiveness accurately is reasonably stable across the job performance dimensions of a given job.

Across-task reliability results, a more stringent test of the stability of the accuracy "ability" in person perception, have indicated little generality across the rating tasks studied. Crow and Hammond's (1957) data show no reliability in accuracy scores, and Cline's (1964) results yielded generally low reliability coefficients (median r = .34) across rating tasks. Cline's results, however, may not be comparable to Crow and Hammond's results because Cline did not use differential accuracy to measure accuracy.

In contrast to these studies, the present study found across-job stability of performance-rating "ability" to be somewhat higher. One reason for this finding may well be that the two rating tasks in this study are considerably more similar in nature than the rating tasks Crow and Hammond (1957) used and somewhat more similar than the rating tasks Cline (1964) used to obtain across-task reliabilities. Clearly, the greater the similarity between two rating tasks, the more likely that a single set of "abilities" associated with accuracy accounts for results in both settings.

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[8] To make Crow and Hammond's reliability results comparable to results obtained by Grossman (1963) and Bronfenbrenner et al. (1958), the Spearman-Brown formula should be applied. This adjustment yields a median within-task reliability coefficient of .29 and a median test-retest reliability of .39.

With respect to this point, we discussed in Chapter 2 the large variety of settings in which researchers could study person perception accuracy. Different abilities are probably needed in different settings to accurately perceive and rate others. Thus, it is no surprise that little relation exists among accuracy scores obtained in very different settings. Those results suggest giving up the search for some pervasive, global perceptual ability which cuts across widely differing types of settings.

Viewed within this context, the present study used rating tasks which are relatively similar, both involving perception and rating of others' job performances. Thus, finding individual differences consistently associated with accuracy is more likely. In this study, within-rating task reliability in accuracy was found to be higher than acrosstask reliability, indicating that to some extent individual differences or "abilities" associated with accurately rating job performance may be situation (job) specific. Still, the magnitude of the across-task reliability (.46) offers some hope of identifying "abilities" related to performance rating accuracy in general.

Rating errors. A separate issue involves the reliability of various response errors raters make. Crow and Hammond (1957) and Gross (1961) provide data bearing upon the stability of response tendencies associated with rating others' personal characteristics. In their test-retest study, Crow and Hammond (1957) computed two response tendency scores--implicit stereotype and adherence to stereotype. An implicit stereotype score for a subject on a rating dimension was simply his/her mean rating of all target persons on that dimension; a single adherence to stereotype score was formed for each subject by computing the standard deviation of his/her ratings of target persons on each dimension and then averaging those standard deviations across dimensions. Test-retest reliabilities of these response tendency scores were higher than for the accuracy scores. Single scale reliabilities for implicit stereotype ranged from .30 to .68 (median r = .52); reliabilities for adherence to stereotype ranged from .47 - .74 (median r = .54).

Gross (1961) gathered comparable measures. Her relative leniency measure (like implicit stereotype) yielded a reliability coefficient of .57, while restriction of range reliability (like adherence to stereotype) was .91.

Crow and Hammond (1957) concluded from their data that accuracy in person perception did not constitute a very stable "ability." More stable, they believed, were rating tendencies such as leniency and restriction of range. Indeed, Gross's results along with studies of rating polarity (Hamilton, 1968) do suggest that certain rating response tendencies are reliable phenomena.

Within-job reliability coefficients for the three response tendencies measured in the present study are also reasonably high. All such reliability coefficients are in the 60's for the recruiter job and range from .43 to .69 for the manager job. Across-job reliabilities associated with two of these three indices were also good (for halo the intraclass was .72; for restriction of range the intraclass was .58). Reliability of the leniency/severity response tendency across the two jobs was, however, very low. In sum, the present study found reliabilities of the response rating tendencies, restriction of range and halo, to be at approximately the same level as response rating tendencies found in person perception studies using personal characteristics as rating dimensions. The present study, however, found the response rating tendency leniency/severity, to be less stable than did Crow and Hammond (1957) and Gross (1961).

The reliability of accuracy and rating error indices clearly affects the study of relationships between individual differences and accuracy, halo, restriction of range and leniency/severity. Across-job reliability coefficients suggest that halo, restriction of range, and accuracy are sufficiently reliable to study further. Leniency/severity, however, appears unreliable across job and therefore we did not attempt to study individual differences associated with this response tendency.

4.2 "Predicting" Accuracy and Rating Errors from MPPB responses

Our approach then was to correlate measures of individual differences (the MPPB) with each of the three reliable criteria - accuracy, restriction in range and halo. Such correlations were computed for each job separately and for the jobs combined. This approach enabled us to discover both the correlates of criterion scores within each job and the stability of those results across the two jobs.

These correlational analyses served two purposes. First they provided a multivariate depiction of the "predictability" of accuracy and the two reliable rating errors from personalogical and biographical variables. Second, they provided an exploratory look at the correlates of these three criteria.

4.2.1 Relationships between MPPB composites and criteria. Section 3.7.2 of this report described the development of MPPB composites designed to represent as comprehensively and as parsimoniously as possible the reliable variance contained in MPPB responses. A factor analysis of scale and item intercorrelations yielded 14 interpretable orthogonal factors. These factors along with two extra variables were then selected to summarize common variance among all MPPB measures. The low number and relative orthogonality of the 16 variates provided a very manageable predictor set for estimating the multivariate relationships between the variates and each rating criterion index.

Table 11 provides results of the multiple regression analysis in which the 16 variates were regressed upon accuracy scores. The multiple R's are .44, .47, and .52 respectively for the recruiter job, manager job, and the two jobs together. These coefficients however probably overestimate somewhat the magnitude of the population multiple R's. Therefore, the Wherry estimate of population R was employed to account for probable shrinkage of these R's. The resulting multiple R's are .28, .33, and .41.

Univariate r's between individual composites and accuracy show that variables 3, 11, and 12 in Table 11 are consistently related to accuracy in the positive direction. Accurate raters in this study tend to be free from selfdoubt, tend not to worry or become stressed, are intelligent, have high grades and investigative interests, and tend to be detail oriented in their approach to tasks.

Table 12 presents the analogous results for halo. Though halo was the most reliable of the three criterion measures considered in these analyses, relationships between MPPB variates and halo are extremely low. The Wherry estimates of population multiple R's are actually zero for each of the three analyses. No univariate r's are greater than .13, further suggesting that the relationship between MPPB variables and halo is near zero.

Table 13 depicts multiple regression results for the criterion measure restriction of range. These multiple R's and Wherry estimates of the population multiple correlations are larger than those obtained for halo. The Wherry estimates for the three data sets are .35, .24, and .27. The greatest contributors to these relationships are variates 1 and 6. According to these data, subjects high in friendliness, consideration and interpersonal orientation tend to differentiate among ratees to a greater extent than do subjects low on this composite; in addition, subjects who are older and have some experience in rating others' performances tend to differentiate ratees more than do subjects low on this variate.

So far we have defined halo and restriction of range in a relative sense. Higher variablity always has meant less halo or less restriction of range, lower variability, more halo or restriction of range. Thus, we have treated halo and restriction of range as <u>rating tendencies</u> or <u>response characteristics</u> rather than as errors per se (although we have called them "errors").

There exists two other ways to measure halo and restriction of range ways which explicitly treat these rating tendencies as error. For both methods of indexing error, the sample is divided into three different groups. Group 1 consists of subjects who have low standard deviation-i.e., high halo or restriction of range compared to the expert raters. The second group consists of subjects who have standard deviations at levels approaching those of the expert raters. The last group contains standard deviations <u>larger</u> than those of the expert raters. Thus, using the expert raters as "standards", three groups are formed for halo, and three for restriction of range.

TABLE 11

Multiple Regression Results: Regressing MPPB Variates on Accuracy

Variates	Univariate Correlations[a]		
	Recruiter Job	Manager Job	Both Jobs Together
1. Friendliness; consideration; interpersonal orientation.	.02	-.07	-.04
2. Organization; hard work.	.08	.02	.06
3. Freedom from self-doubt and disillusionment; acceptance of others; tendency not to worry or become stressed.	.20	.21	.26
4. Dominance, decisiveness, and perception of self-competence; achievement motivation.	-.05	-.05	-.06
5. Conventional versus artistic interests.	-.15	-.06	-.12
6. "Old age"; experience in evaluating others' performance as well as interest and involvement in the process.	-.04	-.02	-.03
7. Preference for dealing with things rather than people; realistic versus enterprising interests.	-.03	-.02	-.03
8. Youngest in the family.	-.06	-.05	-.07
9. Social interests; interest in observing others.	.00	-.24	-.17

[a]Regression weights are provided neither in this table nor in tables 12 & 13 because the regression weights are very similar in magnitude to the univariate correlations due to the near orthogonality of the 16 variates.

TABLE 11 (continued)

	Univariate Correlations[a]		
	Recruiter Job	Manager Job	Both Jobs Together
10. Sensitivity and social responsivity; being interpersonally attuned; impulsiveness.	.13	.02	.08
11. Intelligence, high grades, and investigative interests.	.20	.21	.26
12. Detail orientation.	.16	.12	.18
13. Task involvement; endorsement of strict discipline.	.05	.14	.13
14. Number of friends and leadership in high school; self-perceived similarity to others.	-.03	-.11	-.09
15. Tendency to evaluate favorably those persons not liked.	.05	.04	.05
16. Knowledge of the general public's opinions.	.09	.03	.07
Multiple Correlations	.44	.47	.52
Wherry Estimates	.28	.33	.41

[a]Regression weights are provided neither in this table nor in tables 12 & 13 because the regression weights are very similar in magnitude to the univariate correlations due to the near orthogonality of the 16 variates.

TABLE 12

Multiple Regression Results: Regressing MPPB Variates on Halo

	Univariate Correlations		
	Recruiter Job	Manager Job	Both Jobs Together
1. Friendliness; consideration; interpersonal orientation.	-.12	-.04	-.10
2. Organization; hard work.	-.02	-.09	-.06
3. Freedom from self-doubt and disillusionment; acceptance of others; tendency not to worry or become stressed.	-.05	.03	-.01
4. Dominance, decisiveness, and perception of self-competence; achievement motivation.	.04	.10	.08
5. Conventional versus artistic interests.	-.01	.05	.02
6. "Old age"; experience in evaluating others' performance as well as interest and involvement in the process.	-.11	-.06	-.10
7. Preference for dealing with things rather than people; realistic versus enterprising interests.	.07	.10	.09
8. Youngest in the family.	-.05	-.04	-.05
9. Social interests; interest in observing others.	.01	.00	.01

TABLE 12 (continued)

	Univariate Correlations		
	Recruiter Job	Manager Job	Both Jobs Together
10. Sensitivity and social responsivity; being interpersonally attuned; impulsiveness.	-.05	-.10	-.08
11. Intelligence, high grades, and investigative interests.	.03	.01	.02
12. Detail orientation.	-.02	.01	-.01
13. Task involvement; endorsement of strict discipline.	-.04	-.06	-.05
14. Number of friends and leadership in high school; self-perceived similarity to others.	-.13	.03	-.06
15. Tendency to evaluate favorably those persons not liked.	.05	-.07	-.01
16. Knowledge of the general public's opinions.	.09	.10	.11
Multiple Correlations	.30	.35	.34
Wherry Estimates	.00	.00	.00

TABLE 13

Multiple Regression Results: Regressing MPPB Variates on Restriction of Range

	Univariate Correlations		
	Recruiter Job	Manager Job	Both Jobs Together
1. Friendliness; consideration; interpersonal orientation.	.30	.12	.25
2. Organization; hard work.	.11	-.08	.02
3. Freedom from self-doubt and disillusionment; acceptance of others; tendency not to worry or become stressed.	.13	.09	.13
4. Dominance, decisiveness, and perception of self-competence; achievement motivation.	.02	-.13	-.07
5. Conventional versus artistic interests.	-.13	-.14	-.16
6. "Old age"; experience in evaluating others' performance as well as interest and involvement in the process.	.20	.13	.19
7. Preference for dealing with things rather than people; ralistic versus enterprising interests.	-.08	-.13	-.13
8. Youngest in the family.	.05	.00	.03
9. Social interests; interest in observing others.	.15	-.01	.08

TABLE 13 (continued)

	Univariate Correlations		
	Recruiter Job	Manager Job	Both Jobs Together
10. Sensitivity and social responsivity; being interpersonally attuned; impulsiveness.	-.03	.05	.01
11. Intelligence, high grades, and investigative interests.	-.04	.19	.09
12. Detail orientation.	.06	.04	.06
13. Task involvement; endorsement of strict discipline.	.03	.12	.10
14. Number of friends and leadership in high school; self-perceived similarity to others.	-.04	.06	.02
15. Tendency to evaluate favorably those persons not liked.	.01	-.02	-.01
16. Knowledge of the general public's opinions.	-.03	-.07	-.06
Multiple Correlations	.48	.42	.44
Wherry Estimates	.35	.24	.27

Clearly, the low variability group, both for halo and for restriction of range, is committing a rating error. The group whose variability is the "normal" range compared with expert raters can reasonably be termed a "low error" group. However, we have difficulty knowing whether the high variability group is committing a halo or restriction of range rating error. On the one hand, raters in the high variability groups may be committing errors of a different type--over representing the variability of ratees' performance across dimensions (opposite of halo) or over representing the variability of ratees' performances on each dimension, (opposite of restriction of range). Or, members of the high variability groups may be more correct than the experts in terms of their ratings' variability across dimensions or ratees.

The first view argues for calling members of the middle variability group (for both halo and restriction in range) the "low error" persons, and for treating members of the other two groups, high and low variability groups (for halo and restriction in range), as "high error" persons. The latter view suggests that members of the middle and high variability group are "low error" persons and that the low variability group be identified as "high error" persons.

Examining the distributions of expert and student raters provides some clues about the most reasonable way of characterizing rating errors. Means, ranges, and standard deviations yield the following information. For halo, experts have a mean score of 1.13 with a range from .92 to 1.34 and a standard deviation of .12.[9] The 146 student raters have an almost identical mean (1.12), however, the scores range from .69 to 1.69 with a standard deviation of .18. For restriction of range, the expert mean is 1.64 with a range of 1.40 to 1.76 and a standard deviation of .09. For students, the mean equals 1.71, and scores range from 1.34 to 2.07 with a standard deviation of .17.

The lower variability in both halo and restriction of range scores for expert raters compared to the student raters argues indirectly for defining both high and low variability groups as deviant and to contrast the MPPB scores of the middle, "low error" groups with the MPPB scores of the higher and lower, "high error" groups. On the other hand, the considerable overlap between student and expert distributions of halo and restriction of range scores argues for dropping the notion of "error" and studying these measures as rating tendencies or response characteristics, as we did in the correlational analyses. Still a third alternative is to view the low variability group as "high error" and both medium and high variability groups as "low error".

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[9] To obtain these results, each expert's halo score--standard deviation of ratings made across dimensions for a single ratee were averaged to form a single halo score for that expert rater. It is the distribution of these scores that is being considered. Data for restriction of range was treated in an analogous manner.

Because of the unresolved definitional questions just discussed and because of the exploratory nature of this part of the study, we decided to examine the mean MPPB composite scores for high, medium, and low variability in a manner that would allow both ways of viewing error. Table 14 presents halo results for the recruiter job, for the manager job, and for both jobs combined. Table 15 depicts the same information for restriction of range. Included in each of the tables are results of two contrasts which define operationally the comparisions discussed above. Contrast 1 compares the low variability, "error" group, with the other two groups. Contrast 2 compares the middle variability group with the other two "error" groups.

Regardless of the way error is defined, halo results show negligible differences across groups of any of the MPPB variates. Of the 96 contrasts tested, only three show differences significantly different from zero, no more than would be expected by chance. Thus, the relationship between MPPB variates and halo, no matter which way this rating tendency is defined, is near zero for both jobs and for the two jobs taken together.

Results for restriction of range are similar. Only two of the 96 contrasts are significant. In both cases the significant contrasts involve Variate #1 and comparisions in which the high variability group is treated as a "low error" group. Based on the recruiter job data and the combined recruiter/manager data, the low variability group, i.e., the "high error" group - is significantly lower on Variate #1 than members of the other two combined groups. The error group therefore contains persons less friendly, less considerate, and less interpersonally oriented than those in the two other groups. This finding corresponds with correlational evidence presented earlier in which Variate #1 was significantly correlated with restriction of range.

Overall, the correlational and contrast analyses show that halo, regardless of definition, is unrelated to MPPB composites and that restriction of range is only slightly more correlated with MPPB variates.

In contrast, accuracy in rating performance is consistently related in a multivariate manner to the 16 MPPB variates. Two of these variates consistently correlate .20 or greater with accuracy.

4.2.2 Investigating individual MPPB items and scale correlates of rating accuracy and rating errors: An exploratory study. This analysis provides a detailed view of the abilities, personality variables, biographical information, etc. that are associated with accuracy in performance rating and avoiding the two rating errors. In each of the three tables below (Tables 16, 17, and 18) every individual MPPB variable which is significantly related at the .05 level or greater to one of the overall (across-job) criterion scores is listed. Also shown in the tables are correlations between each MPPB variate and the criterion for each job to show the stability of the relationship across rating situations (i.e., jobs).

Table 14

T-Scores on MPPB Variates for Groups with
High, Medium, and Low Halo Scores

Recruiter Job

Variable[a]	Group 1	Group 2	Group 3	Constant 1[b]	Constant 2[c]
1	50.8	50.6	48.5	1.2	.9
2	50.6	50.3	49.1	.9	.4
3	51.1	49.3	49.6	1.7	-1.0
4	49.8	50.3	49.9	-.3	.4
5	50.1	50.3	49.6	.2	.5
6	51.4	49.1	49.5	2.1	-1.3
7	49.3	48.5	52.3	-1.0	-2.3
8	51.3	48.0	50.9	1.8	-3.1
9	51.8	48.6	49.7	2.7	-2.1
10	50.4	50.4	49.2	.6	.7
11	50.0	48.7	51.4	-.1	-2.0
12	50.4	50.7	48.9	.6	1.0
13	50.0	50.7	49.2	.1	1.1
14	52.3	48.0	49.9	3.4	-3.1
15	50.0	48.6	51.5	-.1	-2.2
16	49.1	50.3	50.6	-1.4	.4

Number of Observations for Group 1 = 39.
Number of Observations for Group 2 = 42.
Number of Observations for Group 3 = 39.

.05-Error Limit for Constant 1 -- Constant = 3.88
.01-Error Limit for Constant 1 -- Constant = 5.12
.05-Error Limit for Constant 2 -- Constant = 3.81
.01-Error Limit for Constant 2 -- Constant = 5.03

a. See Tables 11, 12, or 13 for list of MPPB variates.

b. Contrast 1 = $\bar{x}_1 - 1/2\ (\bar{x}_2 + \bar{x}_3)$

c. Contrast 2 = $\bar{x}_2 - 1/2\ (\bar{x}_2 + \bar{x}_3)$

Table 14 (continued)

Manager Job

Variable[a]	Group 1	Group 2	Group 3	Constant 1[b]	Constant 2[c]
1	50.6	50.5	48.8	.9	.8
2	50.4	50.2	49.8	.6	.4
3	50.6	47.8	51.7	.9	-3.4
4	48.1	51.8	50.0	-2.7	2.7
5	49.8	49.4	50.8	-.3	-.9
6	51.7	47.9	50.6	2.4	-3.3
7	48.7	49.0	52.3	-2.0	-1.5
8	48.1	52.9	48.8	-2.7	4.4
9	49.3	50.2	50.5	-1.1	.3
10	50.8	50.7	48.5	1.2	1.0
11	51.8	47.5	50.9	2.6	-3.9
12	50.5	48.3	51.3	.7	-2.7
13	49.8	51.5	48.5	-.2	2.3
14	49.3	49.7	51.1	-1.1	-.5
15	50.3	50.2	49.4	.5	.4
16	49.6	50.2	50.2	-.5	.3

Number of Observations for Group 1 = 39.
Number of Observations for Group 2 = 42.
Number of Observations for Group 3 = 39.

.05-Error Limit for Constant 1 -- Constant = 3.88
.01-Error Limit for Constant 1 -- Constant = 5.12
.05-Error Limit for Constant 2 -- Constant = 3.81
.01-Error Limit for Constant 2 -- Constant = 5.03

a. See Tables 11, 12, or 13 for list of MPPB variates.

b. Contrast 1 = $\bar{x}_1 - 1/2\ (\bar{x}_2 + \bar{x}_3)$

c. Contrast 2 = $\bar{x}_2 - 1/2\ (\bar{x}_1 + \bar{x}_3)$

Table 14 (continued)

Both Jobs Together

Variable[a]	Group 1	Group 2	Group 3	Constant 1[b]	Constant 2[c]
1	51.4	50.4	48.2	2.1	.6
2	49.6	50.9	49.6	-.6	1.3
3	50.3	50.4	49.3	.4	.6
4	49.3	49.7	50.9	-1.0	-.4
5	49.9	50.1	49.9	-.1	.2
6	51.2	48.3	50.4	1.9	-2.5
7	49.4	48.5	52.0	-.8	-2.2
8	49.5	50.5	50.0	-.7	.7
9	49.3	50.2	50.5	-1.1	.4
10	50.4	51.1	48.5	.6	1.7
11	49.5	50.7	49.8	-.7	1.1
12	48.7	53.4	48.0	-2.0	5.1
13	50.0	51.5	48.6	-.1	2.2
14	50.5	50.3	49.2	.7	.4
15	49.7	51.1	49.3	-.5	1.7
16	49.3	49.7	51.0	-1.0	-.4

Number of Observations for Group 1 = 40.
Number of Observations for Group 2 = 39.
Number of Observations for Group 3 = 41.

.05-Error Limit for Constant 1 -- Constant = 3.85
.01-Error Limit for Constant 1 -- Constant = 5.09
.05-Error Limit for Constant 2 -- Constant = 3.88
.01-Error Limit for Constant 2 -- Constant = 5.12

a. See Tables 11, 12, or 13 for list of MPPB variates.

b. Contrast 1 = $\bar{x}_1 - 1/2\ (\bar{x}_2 + \bar{x}_3)$

c. Contrast 2 = $\bar{x}_2 - 1/2\ (\bar{x}_1 + \bar{x}_3)$

Table 15

T-Scores on MPPB Variates for Groups with
High, Medium, and Low Restriction of Range Scores

Recruiter Job

Variable[a]	Group 1	Group 2	Group 3	Constant 1[b]	Constant 2[c]
1	47.4	49.1	53.5	-3.9	-1.3
2	47.6	51.6	50.7	-3.6	2.5
3	48.5	50.3	51.2	-2.2	.4
4	49.7	49.2	51.2	-.5	-1.2
5	51.8	49.1	49.1	2.7	-1.3
6	47.9	48.7	53.4	-3.1	-2.0
7	51.1	50.5	48.4	1.6	.8
8	49.1	48.8	52.1	-1.3	-1.8
9	48.0	49.2	52.7	-2.9	-1.2
10	50.8	48.8	50.5	1.1	-1.8
11	49.8	50.1	50.1	-.3	.2
12	50.0	48.4	51.7	-.1	-2.5
13	50.4	49.1	50.6	.5	-1.4
14	49.5	51.4	49.0	-.7	2.2
15	50.1	49.8	50.1	.2	-.3
16	49.9	51.7	48.3	-.1	2.6

Number of Observations for Group 1 = 39.
Number of Observations for Group 2 = 41.
Number of Observations for Group 3 = 40.

.05-Error Limit for Constant 1 -- Constant = 3.88
.01-Error Limit for Constant 1 -- Constant = 5.12
.05-Error Limit for Constant 2 -- Constant = 3.83
.01-Error Limit for Constant 2 -- Constant = 5.06

a. See Tables 11, 12, or 13 for list of MPPB variates.

b. Contrast 1 = $\bar{x}_1 - 1/2\ (\bar{x}_2 + \bar{x}_3)$

c. Contrast 2 = $\bar{x}_2 - 1/2\ (\bar{x}_1 + \bar{x}_3)$

Table 15 (continued)

Manager Job

Variable[a]	Group 1	Group 2	Group 3	Constant 1[b]	Constant 2[c]
1	49.8	48.2	52.0	-.3	-2.7
2	51.2	49.9	48.9	1.9	-.2
3	49.1	48.6	52.3	-1.3	-2.1
4	51.4	49.6	49.0	2.1	-.6
5	51.1	50.6	48.4	1.6	.9
6	47.8	51.1	51.1	-3.3	1.6
7	51.7	49.6	48.7	2.5	-.6
8	49.6	49.2	51.2	-.5	-1.3
9	49.4	51.7	49.0	-1.0	2.5
10	50.4	49.9	49.6	.6	-.1
11	47.7	50.3	51.9	-3.4	.5
12	48.7	50.7	50.6	-1.9	1.1
13	48.6	49.9	51.5	-2.2	-.1
14	50.5	49.6	49.9	.7	-.6
15	49.7	51.1	49.3	-.5	1.6
16	51.0	48.9	50.1	1.4	-1.6

Number of Observations for Group 1 = 40.
Number of Observations for Group 2 = 40.
Number of Observations for Group 3 = 40.

.05-Error Limit for Constant 1 -- Constant = 3.85
.01-Error Limit for Constant 1 -- Constant = 5.09
.05-Error Limit for Constant 2 -- Constant = 3.85
.01-Error Limit for Constant 2 -- Constant = 5.09

a. See Tables 11, 12, or 13 for list of MPPB variates.

b. Contrast 1 = $\bar{x}_1 - 1/2\ (\bar{x}_2 + \bar{x}_3)$

c. Contrast 2 = $\bar{x}_2 - 1/2\ (\bar{x}_1 + \bar{x}_3)$

Table 15 (continued)

Both Jobs Together

Variable[a]	Group 1	Group 2	Group 3	Constant 1[b]	Constant 2[c]
1	46.1	50.5	53.4	-5.9	.8
2	49.3	51.0	49.8	-1.1	1.4
3	49.3	47.9	52.8	-1.0	-3.2
4	51.3	47.7	51.0	1.9	-3.5
5	51.2	50.9	47.9	1.8	1.3
6	48.2	49.1	52.7	-2.8	-1.3
7	50.6	50.6	48.8	.9	.9
8	49.4	50.3	50.4	-1.0	.4
9	48.6	49.9	51.4	-2.0	-.1
10	51.1	48.9	50.0	1.7	-1.7
11	49.0	49.8	51.2	-1.5	-.3
12	49.1	51.2	49.7	-1.3	1.7
13	48.4	49.2	52.4	-2.4	-1.2
14	49.1	51.1	49.8	-1.3	1.6
15	49.1	51.7	49.2	-1.4	2.6
16	51.8	49.1	49.1	2.7	-1.4

Number of Observations for Group 1 = 40.
Number of Observations for Group 2 = 40.
Number of Observations for Group 3 = 40.

.05-Error Limit for Constant 1 -- Constant = 3.85
.01-Error Limit for Constant 1 -- Constant = 5.09
.05-Error Limit for Constant 2 -- Constant = 3.85
.01-Error Limit for Constant 2 -- Constant = 5.09

a. See Tables 11, 12, or 13 for list of MPPB variates.

b. Contrast 1 = $\bar{x}_1 - 1/2\ (\bar{x}_2 + \bar{x}_3)$

c. Contrast 2 = $\bar{x}_2 - 1/2\ (\bar{x}_1 + \bar{x}_3)$

Accuracy. Table 16 shows that when accuracy data from both jobs are combined to form the criterion, accuracy is significantly related to 10 MPPB variables. Further, in each case the correlations between MPPB variables and accuracy for each rating task (job) are also in the same direction. This suggests that these relationships are reasonably stable across performance rating situations. The nature of these significant correlates indicates that accurate perceivers of performance tend to be intelligent, self-confident, and detail oriented persons.

The ACL and CPI correlates of accuracy provide further insight into the characteristics of accurate perceivers of performance. Accurate judges tend to be self-controlled in their actions, obliging, mannerly and tactful. They tend to be dependable, stable, good-natured persons, and are seldom described in such terms as rebellious, arrogant, careless, headstrong, irresponsible, disorderly, or impulsive (Gough and Heilbrun, 1965). Positive correlations with "Empathy" and "Tolerance" help to complete our description of the accurate perceiver. Using results of Gough's research on the tolerance construct and Hogan's work on the empathy construct, we can conclude that the accurate perceiver of performance is generally, even tempered, outgoing, patient, affiliative but socially ascendant (Greif and Hogan, 1973). Accurate perceivers are also informal, pleasant, logical, unselfish, and mature. They are verbally fluent and conversationally facile, usually taking the initiative in social relations (Gough, 1968).

Negative correlations with three ACL scales "Heterosexuality", "Exhibition", and "Aggression" provide further clues about the nature of relatively accurate subjects. Relationships with heterosexuality and exhibition suggest that accurate perceivers are thoughtful and often inhibit their impulses. Persons less accurate tend to be adventurous, excitable, pleasure-seeking, boastful, loud, and self-seeking individuals (Gough and Heilbrun, 1965). The correlation with aggression also supports results presented above: accurate perceivers are calm, sympathetic, sincere in their relationships with others, somewhat conforming "but not necessarily lacking in courage or tenacity." (Gough and Heilbrum, 1965, pp. 9). Finally, accurate subjects often perceive themselves to be right in their first impressions of other persons.

Halo. The relationships between MPPB variables and halo are fewer and lower in magnitude. In fact, the negative results of the multiple regression analysis suggest that care must be taken in interpreting these univariate relationships--they may be significant merely by chance.

Table 17 shows that the "Hedge" score on Gough's Opinion Prediction Scale provides the highest correlation with halo. Persons who tended to predict others' opinions as in the middle range were also more likely to provide job performance ratings characterized by high halo (low standard deviations across dimensions within ratees). This relationship makes intuitive sense,

TABLE 16

Individual Item/Scale Correlates of Accuracy

N	Variable	Correlation With Overall Accuracy	Correlation With Accuracy on Recruiter Job	Correlation With Accuracy on Manager Job
144	1. Verbal reasoning	.31**	.21*	.28**
145	2. Self-perceived detail orientation - Bio items.	.24**	.25**	.14
145	3. Number of unfavorable adjectives checked - ACL	-.20*	-.10	-.21*
145	4. Self-control - ACL	.20*	.13	.19*
143	5. Tolerance - CPI	.19*	.20*	.11
145	6. Heterosexuality - ACL	-.18*	-.16	-.13
145	7. Exhibition - ACL	-.18*	-.20*	-.10
145	8. Self-perception of how often first impression of a person is right - Bio item	.17*	.10	.16
141	9. Empathy - CPI, MMPI	.17*	.19*	.09
145	10. Aggression - ACL	-.17	-.09	-.17*

* $p<.05$
** $p<.01$

TABLE 17

Individual Item/Scale Correlates of Halo

N	Variable	Correlation With Overall Halo	Correlation With Halo on Recruiter Job	Correlation With Halo on Manager Job
144	1. Hedge score - the Opinion Prediction scale	-.23**[a]	-.23**	-.17*
143	2. Absorbtion: enjoying and seeking imaginative experiences interesting sights, sounds, etc.- Tellegan scale	.20*	.17*	.18*
141	3. Seeing self as highly similar to others and believing that people are similar to each other - Janz scale	-.19*	-.22**	-.11
145	4. Age	-.18*	-.16	-.16
143	5. Tolerance - CPI	-.17*	-.13	-.18*

[a]A high score on Halo means high standard deviations and thus indicates low Halo or resistance to Halo.

* $p<.05$
** $p<.01$

and should perhaps be accepted as a legitimate rather than a chance finding despite the previous cautionary note. It suggests that persons who tend to be cautious--to hedge their bets and not "go out on a limb" in estimating others' opinions--also hedge or restrict the variability of performance ratings assigned to individuals.

Also, high halo subjects reported that they view others as similar to themselves and as similar to each other. Perhaps they notice little of the vast individual differences among different persons, keying instead on human characteristics relatively common across people.

The correlation with "Absorption" is intuitively appealing as well. Persons avoiding the halo error tend to enjoy interesting and imaginative experiences. The relationship between halo and "Tolerance", however does not fit intuitively. Those high on halo have high tolerance scores indicating they are verbally fluent, ascendant in relationships with others, and intellectually able. Finally, Table 17 indicates that older persons in the sample succombed more to the halo error than did younger persons. Again, these relationships must be interpreted cautiously because of the negative multivariate results.

Restriction of range. Table 18 presents the significant correlations obtained between individual MPPB items/scales and restriction of range. Three of the highest correlates of restriction of range are self-ratings on highly correlated bipolar Kelly Rep "test" rating scales. Self ratings of friendliness, interest in others, and consideration toward others all correlate positively with variability in ratings across target persons (i.e., resisting the restriction of range response tendency). Variables 3, 4, and 10 in Table 18 are derived from the same Kelly Rep "test" and also correlate positively with resisting the restriction of range response tendency. These relationships indicate that persons who avoided restricting the range of their ratings tend to evaluate themselves more favorably than they evaluate persons they dislike. Variable 7 in Table 18 further suggests that raters who resist the restriction of range response tendency evaluate persons they like more favorably than do raters who restrict the range of their scores.

Two items from our Biographical Inventory also correlate significantly with resisting the restriction of range response tendency. Self-perception of how often one's first impression of a person is right and self-perceived involvement in tasks both relate positively with variability in ratings. Finally, Motowidlo's (1976) measure of self-perceived competence, the expectation of success in various undertakings, is correlated positively with variability of ratings, and a scale measuring realistic interests correlated negatively with resisting the restriction of range response tendency. That is, persons with realistic interests, persons who prefer occupations such as mechanic, engineer, and tool designer, restricted the range of their ratings relative to persons scoring low on this interest theme.

TABLE 18

Individual Item/Scale Correlates of Restriction of Range

N	Variable	Correlation With Overall Restriction of Range	Correlation With Restriction of Range Recruiter Job	Correlation With Restriction of Range Manager Job
144	1. Self rating of friendliness	.34**[a]	.31**	.27**
144	2. Self rating of interest in others	.29**	.32**	.17*
144	3. Mean difference between self ratings and ratings of persons disliked - modified Kelly Rep.	.26**	.23**	.20*
144	4. Mean difference between self ratings and ratings of same sexed persons disliked - modified Kelly Rep.	.24**	.23**	.20*
144	5. Self rating of consideration toward others	.24**	.26**	.14
145	6. Self perception of how often first impression of a person is right - Bio item.	.24**	.16	.24**
143	7. Magnitude of ratings of most preferred (liked) persons - modified Kelly Rep.	.23**	.24**	.14
145	8. Self- perceived involvement in tasks - Bio item	.19*	.10	.21*
135	9. Realistic interests - Bio item.	-.19*	-.17*	-.14
143	10. Mean difference between self ratings and ratings of opposite sexed persons disliked - modified Kelly Rep.	.18*	.17*	.14
145	11. Self-perceived self competence	.18*	.16	.14

[a] A high score on restriction of range means high standard deviations and thus indicates low restriction of range or resistance of restriction of range.

* $p < .05$
** $p < .01$

These correlates indicate that persons who scored relatively high on the restriction of range variable--i.e., provided ratings with more variability--tend to describe themselves as friendly, interested in and considerate of others, competent, and involved in tasks they undertake. These results support and expand upon the multivariate findings.

We should emphasize, however, that the correlations between individual items/scales and especially halo and restriction of range are in general very low. Therefore, the interpretations we have made about individual differences correlates of these rating errors should be taken as very tentative. Somewhat more numerous and higher in magnitude are relationships between MPPB variables and accuracy. Still, the magnitude of these correlations also suggests cautious interpretations.

4.3 Results of the Questionnaire Measuring Subjects' "States" During Rating Sessions

Responses to the four-item "subject state" questionnaire referred to in the "Methods" section yielded an estimate of the degree to which subjects' accuracy scores were dependent upon a possibly temporary "state". Results of this part of the study can be viewed as comparing in a crude way the impact on rating accuracy of subjects' individual differences and their temporary state at the time of the experiment. High correlations between subjects' states would suggest that attitudes toward the rating task explain much of the variance in rating accuracy. If these correlations are higher than the correlations between individual differences and accuracy, we might further conclude that accuracy on the rating tasks is more dependent on these temporary states than on presumably more stable personal characteristics.

Correlations between the three "state" items and accuracy in both tasks combined are -.11, .05, and -.12. Thus, relatively accurate raters had a slight tendency to describe the rating sessions as too boring and too long. The .05 correlation indicates very little relationship between a rater's accuracy and how hard he/she said he/she tried in the sessions.

These correlations suggest that perhaps some small amount of variation in accuracy scores might be explained by attitude toward the rating sessions, with those persons more favorably disposed toward the sessions providing slightly more accurate ratings. However, the magnitude of these relationships is <u>not</u> large.

4.4 Monte Carlo Studies Investigating Some Interrelationships Among (a) Number of Raters, (b) Interrater Agreement, and (c) Accuracy and Rating Errors

Data gathered in this study provided an opportunity to examine in a crude, exploratory way two assumptions related to accuracy in performance ratings. First, industrial psychologists often assume that "the more raters the better." That is, the more raters per ratee the surer we are that the pooled ratings are accurate. A second assumption often made is that performance rating accuracy can be estimated closely by the magnitude of interrater reliability in the pooled ratings--i.e., high reliability implies high accuracy and low reliability implies low accuracy.

To test these assumptions in a nonparametric and exploratory manner, two Monte Carlo studies were conducted. The first of these examined the mean accuracy and rating error scores derived from various sized groups of subject raters. Another study investigated the relationship between interrater agreement and accuracy. Each is explained further below.

4.4.1 Monte Carlo Study I. For this study, we formed various sized rater groups and studied the effects of number of raters on accuracy, halo, and restriction of range.[10] Monte Carlo runs were performed for each job separately. The following is an example of a single Monte Carlo run examining accuracy for the recruiter job with k, the number of raters, equal to 3. Three raters were drawn randomly (with replacement) from the total sample of 146. Mean ratings for each dimension were computed, and these means were correlated with the true scores associated with that dimension of the recruiter job, yielding, then, six accuracy scores (correlations) for this group of raters. The correlation coefficients were transformed to z scores and a mean z computed. Five hundred such realizations of this procedure were completed. The mean and standard deviation of these 500 accuracy scores thus provided an estimate of the accuracy of ratings on the recruiter job derived from rater groups of three. We used analogous procedures to estimate the accuracy of ratings pooled across different sized groups as well as the magnitude of halo and restriction of range when ratings are pooled in this manner.

Table 19 depicts the results. Notice first that accuracy increases as k increases, though at a constantly decelerating rate. Accuracy improves approximately .20 z units as k increases from 1 to 2, .07 - .11 z units as k increases from 2 to 3 and from 3 to 4, and the .04 - .06 z units as k increases from 4 to 5. Further increases in numbers of raters bring smaller increments in accuracy. Encouragingly, both the levels of accuracy associated with various k values and the rate of increase in accuracy as k becomes larger are virtually the same for the recruiter and manager jobs. This suggests some generality for the k-accuracy relationship found here, although other settings might yield different results.

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[10] Leniency was not included because the mean rating (our leniency index) is not affected by number of raters.

TABLE 19

Monte Carlo Study I: Means and Standard Deviations of

Accuracy and Rating Error Scores Computed for Groups of 2-30 Raters

	Accuracy				Halo				Restriction of Range			
	Recruiter Job		Manager Job		Recruiter Job		Manager Job		Recruiter Job		Manager Job	
K	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	.91[a]	.22	.90	.24	1.16	.35	1.25	.60	1.80	.37	1.82	.58
2	1.11	.18	1.10	.24	.92	.24	.98	.37	1.57	.26	1.56	.35
3	1.21	.16	1.21	.21	.83	.15	.92	.32	1.48	.18	1.48	.28
4	1.28	.17	1.31	.19	.77	.13	.83	.24	1.45	.15	1.43	.21
5	1.34	.15	1.35	.19	.73	.10	.80	.21	1.42	.12	1.38	.17
6	1.37	.15	1.39	.18	.71	.10	.77	.19	1.41	.11	1.36	.16
10	1.45	.12	1.48	.17	.66	.07	.70	.12	1.37	.09	1.30	.10
15	1.49	.12	1.54	.15	.63	.05	.67	.09	1.34	.07	1.27	.07
30	1.55	.08	1.62	.10	.59	.03	.63	.05	1.32	.05	1.22	.05

[a]Each mean is based upon 500 Monte Carlo realizations.

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What do these results suggest for the gathering of performance ratings in organizations? In a "real rating situation," of course, many factors besides number of raters bear on the accuracy of performance appraisals. For example, if additional raters have less opportunity to observe relevant, performance-related behavior, one probably should not use their ratings despite results of this study. Also, certain research results suggest that when multiple raters have the opportunity to observe different aspects of job behavior and these different aspects are all important contributors to overall job performance, then combining ratings from these various viewpoints creates a more valid evaluation than would be provided by ratings from a single viewpoint (Borman, 1974; Buckner, 1959; Einhorn, 1972).

The results do suggest, however, that as long as a second rater is well qualified to evaluate a ratee, those ratings should be obtained. The second set of ratings added substantially to the accuracy in this study, and, all other things being equal, should increase the accuracy of performance evaluation in other settings. According to these results, little incremental accuracy is gained by having more than four raters.

Halo results from Table 19 indicate that as k increases halo error also increases[11] although, like accuracy, the rate of change decelerates as k becomes greater. That is, halo increases as more raters are added, but the halo error increases at a slower rate. This result combinedwith the accuracy results just discussed suggests that although accuracy improves as the number of raters per ratee increases, it improves at the expenses of differentiation between dimensions.

This phenomenon, however, is dependent on the degree to which the raters reliably differentiate between dimensions within ratees. In analysis of variance terms, the halo results are dependent upon the magnitude of the ratee x dimension variance component. If that component is very large--i.e., if raters very reliably differentiate between dimensions within ratee-then the increase in halo error as k increases will be relatively small. If the ratee x dimension variance component is small, the rate of increase in halo error (as k becomes larger) will be greater. Therefore, these halo results are extremely dependent on the quality of the ratings, and more specifically, the ratee x dimension index of rating quality. Thus, all that the halo results indicate is that halo can be expected to increase as ratings are pooled across more raters. The rate of increase depends upon the quality of the ratings as indexed by the ratee x dimension interaction variance component.

Restriction of range results are also displayed in Table 19. They indicate that the range of the ratings decreases .23 between k = 1 and k = 2, less than half as much between k = 2 and k = 3, and then very little for

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[11] Recall that higher scores on the halo index indicate lower halo.

subsequent increments in k. Thus, holding other factors constant, adding raters to evaluate each ratee reduces very little the differentiation among ratees obtained when ratings are pooled across raters.

4.4.2 Monte Carlo Study II. The second Monte Carlo study evaluated the relationship between interrater agreement and accuracy for each of several values of k (number of raters per ratees). Again, we must emphasize that, to some extent, results of these Monte Carlo studies are influenced by the particular rating task, raters, ratees, etc. Thus, the findings reported here can only be taken as suggestive of relationships we might expect to obtain in other situations. Also, the reader should note that all raters had equal opportunity to view ratees before evaluating their performance. This experimental control was desirable for the research reported here, but it may restrict the generality of the Monte Carlo results. On the other hand, the presence of two rating tasks indexes, to some extent, the generalizability of all results from the study including the Monte Carlo results.

For Monte Carlo Study II, 500 rater groups of given sizes were randomly drawn with replacement from the sample. The accuracy and degree of interrater agreement were computed for each group and these two "variables" subsequently correlated. The same procedure was followed for each of a variety of rater groups (k = 2-30). Specifically, for each Monte Carlo run for the recruiter job where k = 2, two raters were randomly sampled (with replacement) from the total sample of 146. On each of the six dimensions a mean rating for each ratee was computed, these ratings were then correlated with the ratees' true scores for that dimension and the correlation coefficient transformed to a Fisher z. Then, a single accuracy score for the two raters was formed by computing the mean z obtained on the six recruiter dimensions. In addition, we developed a single index of interrater agreement for these two raters by calculating an intraclass correlation coefficient for each recruiter dimension and then averaging the intraclasses across the six dimensions.

In this manner, an accuracy score and an interrater agreement score were obtained for each of 500 randomly sampled pairs of raters. The two vectors of scores were then correlated (N of the correlation = 500) to describe the relationship between accuracy and interrater agreement for k = 2 on the recruiter job. The same procedure was followed for each of the two jobs and for several values of k.

Results appear in Table 20. First, the relationship between these two indices does not vary systematically with k. For the recruiter job, the correlations between accuracy and interrater reliability range from .33 to .53, but the variation in these correlations is unrelated (linearly) to k. Likewise, for the manager job, the magnitude of correlations appears not to be linearly related to k. Interestingly, the relationship between accuracy and interrater agreement is consistently higher for the manager job than for the recruiter job; reasons for this discrepancy are unclear.

TABLE 20

Monte Carlo Study II: Interrater Reliability - Accuracy

Correlations Computed for Groups of 2-30 Raters

K	Accuracy	
	Recruiter Job	Manager Job
2	.37[a]	.56
3	.27	.61
4	.38	.49
5	.34	.59
6	.38	.61
10	.45	.65
15	.53	.66
30	.33	.53

[a]The N of each correlation coefficient equals 500.

CHAPTER 5

CONCLUSIONS

In studying how various individual differences relate to performance rating accuracy and to the tendency to make rating errors, stability or reliability of accuracy and other rating tendencies needs to be demonstrated. That is, persons who tend to be accurate in rating performance at a particular time in a certain setting should also tend to be accurate at other times and in other kinds of settings; conversely, those who are relatively inaccurate in judging performance on one occasion should also tend to be inaccurate on other occasions. In addition, persons committing a particular kind of rating error (e.g., halo) on one occasion should also be more likely to commit the error on another occasion, and conversely, persons resisting a rating error in a given setting should also tend to resist the rating error on other occasions.

The results of the present study indicate that the reliability of these "abilities" - i.e., the "ability" to make accurate performance ratings and to make/resist various rating errors - was somewhat higher within situation than across situation for accuracy and for two of the three rating errors measured. Restriction of range and accuracy were found to have at least moderate levels of across-situation reliability (intraclass correlations were .58 and .46, respectively); while halo, the measure that was as reliable across situations as within situation, was found to have higher reliability (intraclass was .72 across situation).

The magnitude of the accuracy reliability is of special interest. The across-job stability of this performance-rating "ability" is somewhat higher than the across-task reliability obtained in the person perception studies we reviewed. One reason for this finding may well be that the two rating tasks in this study are more similar in nature than the rating tasks Crow and Hammond (1957), for example, used and perhaps more similar than the tasks Cline (1964) used. Clearly, the greater the similarity between two rating tasks, the more likely that a single set of "abilities" is associated with accuracy in both settings.

Gage and Cronbach (1955) and more recently, Dunnette (1968) have pointed to the large variety of settings in which researchers could and have studied person perception accuracy. For example, the type of people rated, the relationship between raters and ratees (e.g., friends, acquaintances, strangers), and the nature of the personal characteristics judged can all vary. Probably, various combinations of settings demand different abilities to perceive and rate accurately. Gage and Cronbach argue that it should come as no surprise, therefore, that little correlation exists among accuracy scores obtained in very different settings. They suggest giving up the search for some pervasive, global perceptual ability which cuts across widely differing types of settings.

Viewed in this context, the research reported here focuses on a relatively narrow concern--the perception of other's job performance. With this kind of focus, we are more likely to find certain individual differences consistently associated with accuracy. In this study, the within-rating task reliability of accuracy was found to be higher than the across-task reliability, indicating that to some extent individual differences or "abilities" associated with accurately rating performance may be situation specific. Still, the magnitude of across-task reliability (.46) offers some hope for identifying individual differences related to accuracy in rating job performance. We believe that if person perception accuracy is to be studied, researchers must focus on accuracy <u>within</u> certain important and meaningful contexts. Under such conditions the person perception accuracy phenomenon is most likely to be a reliable one. Rating other's job performance appears to be one of these "important and meaningful" contexts.

The reliability of accuracy and two of the three rating errors seemed high enough then to examine relationships between individual differences and each of these three measures. Results of this exploratory study indicated that the individual differences we measured accounted for approximately 16% of the variance in accuracy scores. A Wherry estimate of the multivariate relationship between 16 summary individual differences variates and accuracy was .41. The largest correlates of accuracy (all positive) were "Verbal Reasoning Ability," "Adjustment to Life," (e.g., "Tolerance of Others," "Sense of Well Being"), and "Detail Orientation".

Halo and restriction of range were more difficult to "predict" using individual differences measures. Multivariate relationships between individual differences variates and halo were near zero, and only about 7% of the variance in restriction of range scores could be accounted for by the 16 summary individual differences variates. Only one of these variates, "Friendliness, Consideration, and Interpersonal Orientation," was consistently related to restriction of range. Those persons standing high on the variate tended to restrict their range less than did persons standing lower on the variate.

The accuracy results are particularly interesting because they confirm some of the findings summarized by Taft (1955) in his review of the person perception accuracy literature. Recall that many of the studies he reviewed used "D" or "D^2" as an index of accuracy, a practice which Cronbach (1955) and others subsequently discredited. Even so, the results of those person perception studies and the present investigation of performance rating accuracy are similar. Taft (1955) listed four correlates of person perception accuracy: (1) intelligence; (2) dramatic and artistic interests; (3) emotional stability; (4) social detachment, independence. Intelligence and emotional stability were two of the highest correlates of accuracy in our study, as well. Also, a summary variate called "Conventional versus Artistic Interests" correlated -.12 with accuracy, a relationship which is in the predicted direction and nearly significant at the .05 level. The two measures in our study conceptually closest to the social detachment

construct are the ACL scales "Nurturance," "Affiliation," and "Succorance"; each are conceptually the opposite of social detachment. They correlate .06, .04, and -.10 respectively with accuracy, suggesting that the social detachment-accuracy relationship found in previous person perception studies is not important for the kind of perception accuracy we studied.

Still, we are struck by the similarities between the correlates of accuracy found in previous person perception studies and the correlates of accuracy found in the present study investigating job performance rating accuracy. These similarities, along with some intriguing differences, prompt us to agree with Tagiuri's (1969) assessment of relationships between individual differences and person perception accuracy. He suggested that some persons may be accurate perceivers across a wide range of situations because they possess personal characteristics important for accurately assessing others in a variety of situations. Yet, many persons may be accurate in some situations and inaccurate in other situations because they possess a pattern of personal characteristics which enables them to perceive others accurately under certain conditions but not under other conditions.

This view of the relationship between personal characteristics and person perception accuracy along with results of the present study suggest that a single set of personal characteristics may be appropriate for describing accurate perceivers in widely varying situations. However, individual situations may demand, in addition, that the perceiver possess certain other personal characteristics to be accurate in those situations, personal characteristics which are idiosyncratic to only one or to a small number of situations. For example, intelligence and emotional stability might be characteristics related to person perception accuracy in a wide variety of settings, while detail orientation might also be related to accuracy in judging other's performance effectiveness; and social detachment, in addition to intelligence and emotional stability, might be related to accuracy in assessing other's personality. Clearly, we have little data to support such a model, but results of the present study in conjunction with results of previous person perception studies do suggest the usefulness of "general-specific ability" framework.

The present study's use of videotaped performances with known (and realistic) performance "true scores" appears to offer considerable promise for studying performance ratings. The high interrater agreement among expert judges and the substantial correlation (validity) with intended true scores yields confidence in the mean expert judgments. Although the tapes were expensive and time consuming to develop, we believe they provided good estimates of performance true scores. Clearly, availability of true scores for the criterion represents a major research advantage for the study of accuracy in person perception.

We believe that these carefully developed videotapes can facilitate further study of the performance rating process. We also believe that studies conducted in controlled settings can provide more useful information about the performance rating process and about possible ways to improve the validity of performance evaluations than do field studies which often leave many variables uncontrolled, making results difficult to interpret.

A research program we envision uses the tapes to study in depth various important sets of independent variables potentially affecting the accuracy of performance perceptions. In the present study we examined the relationships between rater individual differences and a) accuracy and b) various rating errors. Results showed that certain personality, interest, and ability variates are useful for predicting a perceiver's proficiency in judging others' performances.

Training is another area for which the tapes could be useful. By studying the effects of various training strategies on performance rating accuracy and rating errors, we might be able to identify those elements in the training strategies which have the most effect on increasing accuracy and reducing rating errors.

Another area for which the tapes may be useful is in studying the various evaluation formats that are used for raters to record their performance judgments. Discovering the relative effectiveness of different rating formats can aid us in making inferences about the human cognitive processes that raters utilize in making valid performance ratings.

Clearly, these and other research possibilities for studying the human performance judgment process can benefit greatly from the use of standard stimulus materials developed in this study. The videotapes and criterion "true scores" developed in the present study should further our understanding about the performance rating process and hopefully in the long run improve the quality of performance evaluations in organizations.

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APPENDIX I

Recruiter and Manager Performance Rating Scales

RECRUITER PERFORMANCE CATEGORIES
GUIDELINES FOR MAKING PERFORMANCE RATINGS

The next section of this booklet contains six (6) Performance Categories describing effective, average, and ineffective performance on the job of recruiting interviewer (Recruiter). The Performance Categories are designed to help you make accurate judgments about the performance of Recruiters on several important facets of this job.

The accompanying booklet entitled *Recruiter Rating* Scales should be used to record performance ratings you assign after referring closely to materials contained in the Performance Categories booklet. Now let's describe the features of the Performance Categories booklet and provide guidelines for proper use of the rating scales.

First, notice that each of the six Performance Categories is labeled and defined carefully at the top of the page. In addition, directly below each category definition are three pairs of behaviorally oriented descriptors representing high level, average, and low level performance. Finally, below these descriptors are seven performance examples--specific behavioral examples of how Recruiters exhibiting various levels of effectiveness might perform on that category. The example numbered "7" demonstrates the highest level performance; the example numbered "1" demonstrates the lowest level.

Here is how you should use Performance Category information to rate a particular ratee. Referring first to Category A (Creating a Favorable Image for the Company), read over the label and definition, and study the level descriptors and performance examples below. Then make a judgment about the performance level exhibited by the ratee by using both level descriptors and performance examples as benchmarks or guides. That is, evaluate the ratee by matching the level of performance he demonstrated with the level of performance indicated by level descriptors and performance examples. Remember, the ratee needs not exhibit performance <u>exactly like</u> the Recruiter depicted in one of the performance examples to rate him at that level. Instead, you should try to match the ratee's overall <u>level of performance</u> on that Performance Category with the <u>level of performance</u> represented by performance examples and level descriptors. When you feel you have "a match," record the appropriate rating in the Recruiter Rating Scales booklet. Follow this procedure for all six Performance Categories.

THINGS TO GUARD AGAINST

Several sources of error can contribute to inaccuracies in your ratings. Here are a few suggestions for overcoming them:

1. Consider each Performance Category separately from all the rest. An almost universal error in ratings is called HALO ERROR. It occurs when the rater gives about the same ratings to a person on all aspects of performance. Usually this error occurs because a rater has not taken enough time to get clearly in mind what each separate category of performance refers to. Remember we are asking you to describe or evaluate each ratee on a number of different categories of performance. As you consider each of the persons you are rating, try to avoid getting into the habit of giving about the same rating to him on each Performance Category. Consider each category separately from all others. Be sure to rate all ratees in each category before going on to the next category.

2. Avoid using your own definitions for the various Performance Categories. A common reason for inaccurate ratings is that raters have different definitions of Performance Categories. This is why it is so very important for you to read the definitions, descriptors, and performance examples carefully. Avoid any previous impressions of what these things have meant to you. Base your ratings on the information provided in the Performance Category booklet.

3. Try to overcome the contrast effect which causes raters to underevaluate or overevaluate an individual because of the level of performance demonstrated by the ratee evaluated just before that individual. An individual tends to be underevaluated, for example, when he appears immediately after a high performer. Conversely, an individual tends to be overevaluated when he appears immediately after a poor performer. To overcome this rating error, attend carefully to the level descriptors and performance examples. Try not to compare one ratee with another; instead, judge each on his own merits, using the descriptors and performance examples as guides.

A. CREATING A FAVORABLE IMAGE FOR THE COMPANY

Presenting a positive, but realistic image of GCI; spelling out clearly the advantages of working for GCI versus presenting a negative or misleadingly positive image of GCI; failing to outline positive aspects such as available programs and opportunities at GCI.

High Level Performance

- Gives the interviewee a very broad and accurate picture of the history and current features of the company.
- Tells the interviewee about special company features that make it well fitted to the capabilities and interests of the interviewee.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. This interviewer can be expected to discuss the history of GCI and how it is currently organized, to describe several ways in which GCI is better than other companies, and to point out specific features of GCI which make it fit the ability and experience of the interviewee better than most other companies.
6. Would expect this interviewer to comment on the many training and development programs that GCI has and to point out that few major companies offer so many exceptional opportunities.

Average Performance

- Gives the interviewee a reasonably good general picture of the company
- Tells the interviewee about some of the things that are especially good about the company.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Can be expected to tell interviewees about GCI's excellent record in the area of environmental pollution to show how progressive and socially aware GCI's top management is.
4. This interviewer can be expected to emphasize one or two central reasons why the interviewee should join GCI and to state that other aspects aren't important.
3. Would expect this interviewer to steer conversation away from areas where GCI does not excel and to spend time describing all the favorable things about the company.

Low Level Performance

- Refrains from talking much about the company and provides some facts that are not entirely accurate.
- Provides no solid reasons for joining GCI and may inappropriately mention one or more negative aspects of working at GCI.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. This interviewer can be expected to mention many bad points about GCI before getting around to mentioning anything good about it.
1. Can be expected to tell the interviewee almost nothing about reputation, benefits, or opportunities offered by GCI and to say nothing about reasons for joining the company.

B. ORGANIZING THE INTERVIEW

Structuring the interview to allow for an appropriately balanced information exchange between recruiter and interviewee; giving the interviewee a chance to ask questions; defining the purpose of the interview versus displaying inadequate organization or planning for the interview; providing inadequate time to ask questions; failing to provide a definition of the interview's purpose.

High Level Performance

- Starts the interview by outlining with the interviewee exactly the kinds of things they will be talking about during the interview and then follows the plan closely.
- Structures the interview so that both the recruiter and the interviewee will have enough time to ask questions and to provide information.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. Can be expected to begin by telling the interviewee that he/she will ask some questions to obtain an idea of the interviewee's qualifications and interests, then to discuss why GCI is a good place to work, and finally, to allow the interviewee to ask whatever questions he/she wants to.

6. This interviewer can be expected to state at the beginning of the interview that he/she wants to spend an equal amount of time discussing the opportunities at GCI, answering the interviewee's questions, ans asking some of his/her own.

Average Performance

- Starts the interview by suggesting a general plan and then follows this plan through most of the session.
- Starts the interview without spelling out a firm structure but manages to provide a reasonably good balance of information exchange anyway.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Would expect this interviewer to state after a few pleasantries, "Let's talk about you and GCI," and then to ask the interviewee about interests. Can also be expected to ask the interviewee what he/she wants to get out of GCI, what his/her qualifications are, and then explain how the interviewee can fit into one of GCI's training programs.

4. Can be expected to state carefully the purpose of the interview and then to follow a check list of "things to cover" during the session.

3. Can expect this interviewer to appear somewhat rushed and harried during the interview. would also expect this interviewer to provide enough time to describe GCI but to cause the interviewee to remind him/her that he/she has some questions.

Low Level Performance

- Starts the interview in a conversational manner without suggesting any plan of things to be covered and maintains this loose organization throughout the interview.
- Conducts the interview in a rambling and disorganized way so that the exchange of information between recruiter and interviewee becomes unbalanced.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. This interviewer can be expected to tell the interviewee to talk about anything he/she wants to and then to sit back and wait. Can also be expected to provide direct answers to questions but to rely on the interviewee to direct and lead the interview.

1. Can expect this interviewer to start talking and asking questions about one thing before finishing up preceding comments such that some questions, answers, and explanations are run together resulting in the interviewee becoming extremely confused.

C. PROVIDING RELEVANT INFORMATION ABOUT THE COMPANY

Giving the interviewee specific information about the characteristics of various jobs so that he/she can make informed decisions; displaying familiarity with programs at GCI and their requirements; demonstrating knowledge about benefits, promotions, pay, etc. versus presenting inadequate information about programs relevant to the interviewee's background and interests; displaying a lack of knowledge about benefits, promotions, pay, etc.

High Level Performance

. Provides complete information about all facets of the company *including various jobs that* might be appropriate for the interviewee.

. Gives comprehensive details of jobs and programs available in the company.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. Can be expected to give specific details about the requirements of the management *trainee program such* as possible continued training, salary, fringe benefits, promotion possibilities, job duties, etc.

6. This interviewer will be expected to display considerable familiarity with GCI's training and benefit programs and to provide basic information about a wide variety of jobs.

Average Performance

. Provides a broad overview of the company and gives details about some of the programs and jobs that might interest the interviewee.

. Has sufficient knowledge about company to answer most of the interviewee's questions but usually doesn't provide specifics.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Would expect this interviewer to display considerable information about most jobs the *interviewee is interested in,* except for some of the job content changes in engineering divisions.

4. When asked specific questions about a certain mechanical engineering position, this interviewer would be expected to give the interviewee a general idea and to offer to find out more particulars for him/her after the interview.

3. This interviewer, although conversant with the general content of most jobs at GCI, would be expected to refer the interviewee to the recruiting brochure when questions arise about pay, training, or promotion opportunities.

Low Level Performance

. Seems to have knowledge about some but not all facets of the company and provides only a limited amount of information to the interviewee.

. Seems to lack knowledge about most jobs and programs relevant to the interviewee and does not give much useful knowledge to the interviewee.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. When asked about positions outside the technical area, can expect this interviewer to state that he/she has come from a technical division at GCI and knows only about jobs in that division.

1. This interviewer may be expected to display little or no knowledge about training opportunities interviewees are interested in and to express ignorance about the existence of GCI's management training program.

D. ASKING RELEVANT QUESTIONS

Asking questions which maximize the amount of meaningful information available to the interviewer; asking the interviewee questions he can understand and respond to readily; making clear the information desired; versus asking questions irrelevant to the job or difficult to answer; unnecessarily confusing the interviewee concerning the information desired.

High Level Performance

. Asks easily understood questions that are relevant to the interviewee and to the job for which he/she is being considered.

. Asks clear questions in a logical way so that the maximum amount of useful information is obtained.

What a high level performer might do:

7. Would expect this interviewer to ask simple, open-ended questions, enabling the interviewee to give rich, yet pertinent information about himself/herself.

6. Can be expected to ask relevant, straightforward questions which leave the interviewee certain of what is being asked and which yield answers the interviewer can use to make a judgment about the interviewee's suitability for GCI.

PERFORMANCE EXAMPLES

Average Performance

. Asks clear questions and obtains good information, but some seem somewhat irrelevant to the job or to the interviewee.

. Asks questions that are clear and easily understood but sometimes gets somewhat "off track" in getting the most meaningful information.

What an average performer might do:

5. This interviewer would be expected to ask short, to-the-point questions such as "Why did you like that particular course best?"

4. For the most part, this interviewer would ask questions relevant to determining the interviewee's potential for an opening in sales at GCI, only occasionally confusing the interviewee about what information was being asked for.

3. Can be expected to ask somewhat vague and general questions, such as "Tell me about yourself" without expanding the questions further.

PERFORMANCE EXAMPLES

Low Level Performance

. Asks questions that are rather confusing and often difficult to answer.

. Asks vague questions that often seem irrelevant so that only a limited amount of meaningful information is obtained.

What a low level performer might do:

2. This interviewer may be expected to ask long, involved questions which often confuse the interviewee.

1. Would expect this interviewer to ask several questions, one after the other, without giving the interviewee a chance to respond fully to any of them.

PERFORMANCE EXAMPLES

E. ANSWERING RECRUITEES' QUESTIONS

Providing complete, clear, concise, and accurate answers to interviewees' questions; answering interviewees' questions so that they have the information desired; ensuring that the interviewee understands the recruiter's answer versus providing incomplete, confusing or inaccurate answers; attempting to avoid questions

High Level Performance

- Carefully answers all questions, making certain the answers are complete and accurate and that the interviewee understands the answers.
- When appropriate provides important extra information related to a question.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. Would expect this interviewer to be meticulous about answers, to go into detail, and to circle important information in the brochures. Would also expect this interviewer to ask if he/she had answered the questions completely.
6. Can be expected to expand the scope of the interviewee's questions, resulting in lengthier, but also more complete answers.

Average Performance

- Usually answers interviewees' questions competently but may get sidetracked during an explanation or, may sometimes answer questions only indirectly.
- Occasionally provides incomplete or unclear answers but generally ensures that interviewees' receive the information desired.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Would be expected to answer most questions completely, to note carefully questions he/she cannot answer, and to tell the interviewee that the answer will be obtained from someone who knows.
4. When asked about GCI's pension plan, can be expected to provide a complete explanation but to ramble on somewhat about the virtues of the plan.
3. This interviewer would be expected to answer most questions competently but to try to bypass a few of the interviewee's questions.

Low Level Performance

- Frequently provides incomplete and superficial answers to legitimate questions about GCI.
- Avoids interviewees' questions or provides confusing responses.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. Can be expected to downplay the interviewee's questions and give only prepared statements in place of answers.
1. Would expect this interviewer, when asked a tough question, to tell the interviewee to read the recruiting brochure.

F. ESTABLISHING RAPPORT WITH INTERVIEWEES

Developing a nonthreatening relationship with the interviewee; creating a relaxed atmosphere; gaining the friendship and trust of the interviewee *versus* failing to establish rapport with the interviewee; creating a cold or threatening atmosphere; failing to put the interviewee at ease.

High Level Performance

. Develops a relaxed atmosphere by talking about a common interest or by asking questions which set the interviewee at ease.

. Greets the interviewee with courtesy and gains the interviewee's trust by being sincere, warm, and personable.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. Would expect this interviewer to begin by talking about an interest in common with the interviewee and to ask questions only after the interviewee is talking freely.

6. This interviewer would greet the interviewee warmly, offer him/her a chair, and spend a short time conversing about his/her alma mater. Then he/she would get down to business and start asking questions.

Average Performance

. Is relaxed and friendly during portions of the interview but also comes on in a very business-like, task oriented way at other times in the session.

. Sets the interviewee somewhat at ease by engaging in small talk at the beginning of the interview or by joking with him/her at appropriate times.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Can be expected to laugh freely when the interviewee makes a joke about his/her past experiences.

4. This interviewer would be expected to begin the interview by making small talk about sports after noticing that the interviewee was a college football player.

3. Can expect this interviewer to be somewhat skeptical and reserved when the interview begins but to become more relaxed and talkative once into the interview.

Low Level Performance

. Interacts in a cold and detached manner during the interview, and is generally unresponsive to the interviewee.

. Creates a threatening atmosphere by immediately asking personal questions or by appearing suspicious of interviewees and their credentials.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. As soon as the interviewee sits down, would expect this interviewer to begin asking him/her questions about his/her background.

1. This interviewer can be expected to appear detached throughout the interview and not to smile, speak, or nod to the interviewee other than to ask or answer questions.

MANAGER PERFORMANCE CATEGORIES

GUIDELINES FOR MAKING PERFORMANCE RATINGS

The next section of this booklet contains seven (7) Performance Categories describing effective, average, and ineffective performance on the job of manager in a problem solving interview (Manager). The Performance Categories are designed to help you make accurate judgments about the performance of Managers on several important facets of this job.

The accompanying booklet entitled Manager Rating Scales should be used to record performance ratings you assign after referring closely to materials contained in the Performance Categories booklet. Now let's describe the features of the Performance Categories booklet and provide guidelines for proper use of the rating scales.

First, notice that each of the seven Performance Categories is labeled and defined carefully at the top of the page. In addition, directly below each category definition are three pairs of behaviorally oriented descriptors representing high level, average, and low level performance. Finally, below these descriptors are seven performance examples--specific behavioral examples of how Managers exhibiting various levels of effectiveness might perform on that category. The example numbered "7" demonstrates the highest level performance; the example numbered "1" demonstrates the lowest level.

Here is how you should use Performance Category information to rate a particular ratee. Referring first to Category A (Structuring and Controlling the Interview), read over the label and definition, and study the level descriptors and performance examples below. Then make a judgment about the performance level exhibited by the ratee by using both level descriptors and performance examples as benchmarks or guides. That is, evaluate the ratee by matching the level of performance he demonstrated with the level of performance indicated by level descriptors and performance examples. Remember, the ratee needs not exhibit performance exactly like the Manager depicted in one of the performance examples to rate him at that level. Instead, you should try to match the ratee's overall level of performance on that Performance Category with the level of performance represented by performance examples and level descriptors. When you feel you have "a match," record the appropriate rating in the Manager Rating Scales booklet. Follow this procedure for all seven Performance Categories.

THINGS TO GUARD AGAINST

Several sources of error can contribute to inaccuracies in your ratings. Here are a few suggestions for overcoming them:

1. Consider each Performance Category separately from all the rest. An almost universal error in ratings is called HALO ERROR. It occurs when the rater gives about the same ratings to a person on all aspects of performance. Usually this error occurs because a rater has not taken enough time to get clearly in mind what each separate category of performance refers to. Remember we are asking you to describe or evaluate each ratee on a number of different categories of performance. As you consider each of the persons you are rating, try to avoid getting into the habit of giving about the same rating to him on each Performance Category. Consider each category separately from all others. Be sure to rate all ratees in each category before going on to the next category.

2. Avoid using your own definitions for the various Performance Categories. A common reason for inaccurate ratings is that raters have different definitions of Performance Categories. This is why it is so very important for you to read the definitions, descriptors, and performance examples carefully. Avoid any previous impressions of what these things have meant to you. Base your ratings on the information provided in the Performance Category booklet.

3. Try to overcome the contrast effect which causes raters to underevaluate or overevaluate an individual because of the level of performance demonstrated by the ratee evaluated just before that individual. An individual tends to be underevaluated, for example, when he appears immediately after a high performer. Conversely, an individual tends to be overevaluated when he appears immediately after a poor performer. To overcome this rating error, attend carefully to the level descriptors and performance examples. Try not to compare one ratee with another; instead, judge each on his own merits, using the descriptors and performance examples as guides.

A. STRUCTURING AND CONTROLLING THE INTERVIEW

Clearly stating the purpose of the interview; maintaining control over the interview; displaying an organized and prepared approach to the interview versus not discussing the purpose of the interview displaying a confused approach; allowing Whipker to control the interview when inappropriate.

High Level Performance

. Outlines clearly the areas to be discussed and skillfully guides the discussion into those areas.

. Displays good preparation for the interview and effectively uses information about Whipker, his subordinates, etc. to conduct a well planned interview.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. At the start of the interview, this Baxter would be expected to outline clearly the areas he wished to discuss. He would then cover each of these areas by skillfully moving the discussion to a new topic whenever an impasse was reached.

6. This Baxter would be well prepared for the Whipker interview. He can be expected to display considerable knowledge about Whipker's projects and the qualifications of Whipker's subordinates.

Average Performance

. States the purpose of the interview but fails to cover some areas he intended to discuss.

. Appears prepared for the interview but at times is unable to control the interview or to guide it into areas planned for discussion.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Can be expected to prepare some notes of some things to cover and occasionally refer to them during the interview.

4. Would expect this Baxter to state that the reason for their discussion was to talk about the communications failure which had occurred recently but that they could talk about other topics as well.

3. Can be expected to state that he has called Whipker in because he wants to get to know his people and to find out how they have been doing in their work.

Low Level Performance

. Fails to indicate the purpose of the interview and appears to be unfamiliar with the file information.

. Appears unprepared for the interview and is unable to control Whipker on the interview.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. After offering a few pleasantries at the start of the interview, would expect this Baxter to be unsure about what to say next, and to remain silent and fidget with Whipker's personnel file.

1. Can expect this Baxter to seem unsure about where the interview is going and to allow Whipker to give him an ultimatum to either change the overtime rules or the delivery schedule on his contracts.

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B. ESTABLISHING AND MAINTAINING RAPPORT

Setting an appropriate climate for the interview; opening the interview in a warm nonthreatening manner; being sensitive to Whipker versus setting a hostile or belligerent climate; being overly friendly or familiar during the interview; displaying insensitivity toward Whipker.

High Level Performance

. Draws Whipker out by projecting sincerity and warmth during the interview.

. Discusses Whipker's problems in a candid but nonthreatening and supportive way.

What a high level performer might do:

7. Would expect this Baxter to project considerable warmth and sincerity during the interview. He may be expected to discuss Whipker's job related problems candidly but in a nonthreatening manner, leaving Whipker with the feeling that his boss would support and help him do his job well.

6. Can be expected to draw Whipker out by talking about some of his problems as United Fund coordinator in his previous job, and then to ask Whipker about his own experience with the United Fund job

Average Performance

. Displays some sincerity and warmth toward Whipker and indicates by his response to Whipker and his problems that he is reasonably sensitive to Whipker's work-related needs.

. Uses mechanical means to set Whipker to set Whipker at ease, i.e., offers coffee.

What an average performer might do:

5. Would be expected to begin the interview by saying that it was nice to talk to Whipker in an informal setting and that he hoped they would have a good working relationship.

4. Can expect this Baxter to greet Whipker cordially at the door and to offer him a chair.

3. Can be expected to begin the interview by slapping Whipker on the back and asking him how things are going on the job in such a manner that Whipker would feel somewhat uneasy.

Low Level Performance

. Projects little feeling or sensitivity toward Whipker; makes no friendly gestures.

. Is confrontive and inappropriately blunt during the interview.

What a low level performer might do:

2. This Baxter would be expected to begin the interview somewhat abruptly by telling Whipker he had asked him in to talk about his (Whipker's) problems in the company.

1. This Baxter can be expected to tell Whipker, without any small talk, "I suppose we both know that you are here because we have been getting reports about your not being able to get along with people on the job."

C. REACTING TO STRESS

Remaining calm and cool, even during Whipker's outbursts; apologizing when appropriate but not backing down or retreating unnecessarily; maintaining composure and perspective under fire versus reacting inappropriately to stress; becoming unreasonable, irate, or defensive in reaction to complaints; backing down inappropriately when confronted.

High Level Performance

- Remains calm during Whipker's outbursts and responds in a rational, problem solving manner.
- Is firm but nondefensive in response to Whipker's verbal assaults; admits fault when appropriate but maintains an effective, problem solving orientation when interacting with Whipker.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. Even though Whipker is at his assaultive best several times during the interview, this Baxter would still maintain his cool, his earnest voice, and his good eye-to-eye contact with Whipker.
6. If Whipker said that he wanted Baxter's job, this Baxter could be expected to be very calm and cool and to say, "Do you have any ideas as to why you didn't get it?"

Average Performance

- Maintains composure during most of the interview but may appear unsettled, self-conscious, or defensive in reaction to some of Whipker's outbursts.
- May become rattled when confronted but recovers quickly.

What an average performer might do:

PERFORMANCE EXAMPLES

5. If Whipker pressed him to explain why he didn't get Baxter's job, this Baxter would present his arguments in a low-key, logical manner.
4. Would expect this Baxter to become a bit rattled when Whipker blows off about the Valva incident, but to recover quickly and request more information about the run-in.
3. When Whipker complains about not receiving the memo regarding Tech Services, can expect this Baxter to say he had no idea what happened to the memo.

Low Level Performance

- Becomes aggressively authoritative with Whipker or becomes helplessly silent during Whipker's outbursts.
- Escalates conflict by reacting defensively to Whipker's outbursts or accusing Whipker of causing problems.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. Can be expected to swallow hard and grab the sides of his chair when Whipker blows up about how he should have had Thomason's job.
1. Would expect this Baxter to respond to Whipker's belligerence by becoming belligerent himself and to state, "You got the memo as fast as anyone else--if you didn't receive the memo, it's your fault."

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D. OBTAINING INFORMATION

Asking appropriate questions; probing effectively to ensure that meaningful topics and important issues are raised; seeking solid information versus glossing over problems and issues; asking inappropriate questions; failing to probe into Whipker's perception of problems.

High Level Performance

. Asks probing questions, ensuring that important topics are discussed.

. Through careful and effective questioning, is able to uncover substantive problems and issues.

What a high level performer might do:

7. By persistently, yet delicately probing Whipker's feelings, this Baxter would be able to determine that Whipker prefers technical to managerial work.

6. This Baxter can be expected to probe into several relevant areas without being overly offensive or upsetting Whipker.

PERFORMANCE

Average Performance

. Asks general questions about Whipker's job and problems.

. Does some questioning and probing into important problems and job related issues but generally fails to follow up effectively.

What an average performer might do:

5. Would expect this Baxter to ask Whipker how he (Whipker) liked his job and whether he had any problems.

4. Could be expected to ask Whipker why he left his former job.

3. This Baxter would be expected to do some probing but never to stick long with any subject that might be distasteful to him or to Whipker.

PERFORMANCE

Low Level Performance

. Asks inappropriate or superficial questions which fail to confront important problems.

. Spends little or no time questioning Whipker about substantive problems or issues.

What a low level performer might do:

2. This Baxter may be expected, out of the blue, to ask Whipker to tell him about his feelings and emotions.

1. Would expect this Baxter to spend nearly the entire interview lecturing and cajoling Whipker and to make very little effort to obtain information from him.

PERFORMANCE

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E. RESOLVING CONFLICT

Moving effectively to reduce the conflict between Valva and Whipker, Whipker and subordinates, etc.; making appropriate commitments and setting realistic goals to ensure conflict resolution; providing good advice to Whipker about his relationships with Valva, subordinates, etc. versus discussing problems too bluntly or lecturing Whipker ineffectively regarding the resolution of conflict; failing to set goals or make commitments appropriate to effective conflict resolution; providing poor advice to Whipker about his relationships with Valva, subordinates, etc.

High Level Performance

- Effectively reduces conflict between Whipker and others by making appropriate and realistic commitments to help Whipker get along better in the department.
- Provides good advice about solving problems and about improving Whipker's poor relationships with his subordinates, Valva, etc.

What a high level performer might do:

PERFORMANCE EXAMPLES

7. Would expect this Baxter to explain patiently that disagreement between people such as the one between Whipker and Valva usually occur because they have different information. Can also be expected to urge Whipker to spend time with Valva to learn more about Valva's department in such a manner that Whipker would agree to do so.

6. This Baxter would offer to go with Whipker to see Valva for the purpose of working out solutions to the problems Whipker and Valva were having with each other.

Average Performance

- Puts forth some effort to reduce conflict between Whipker and others but usually does not commit himself to helping with this conflict resolution.
- Tends to smooth over problems and provide reasonably good advice to Whipker about conflict situations.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Would expect this Baxter to tell Whipker very warmly that the disagreement with Valva was unfortunate but that he had confidence things would work out okay from now on.

4. When Whipker complains about Valva being incompetent, Baxter could be expected to mention that nobody can be perfect all the time and to urge Whipker to be more patient with him.

3. Can be expected to lecture at great length about treating others with respect and working harmoniously together.

Low Level Performance

- Lectures ineffectively or delivers inappropriate ultimatums to Whipker about improving his relationships with others or about changing his "attitude" toward people or problems.
- Fails to make commitments to help Whipker resolve problems or provides poor advice to Whipker about his relationships with Valva, subordinates, etc.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. In response to Whipker's complaints about Valva, would expect this Baxter to state that Valva's department seemed to be running along pretty well. He would also be expected to argue at length about how competent Valva was.

1. This Baxter can be expected to tell Whipker in no uncertain terms that he does not tolerate dissension in his ranks and Whipker is not to mess up the Test Services Department.

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F. DEVELOPING WHIPKER

Offering to help Whipker develop professionally; displaying interest in Whipker's professional growth; specifying developmental needs and recommending sound developmental actions versus not offering to aid in Whipker's professional development; displaying little or no interest in Whipker's professional growth; failing to make developmental suggestions or providing poor advice regarding Whipker's professional development.

PERFORMANCE EXAMPLES

High Level Performance

. Displays considerable interest in Whipker's professional development and provides appropriate, high quality developmental suggestions.

. Makes commitments to help personally in Whipker's development.

What a high level performer might do:

7. This Baxter can be expected to suggest that Whipker go through a series of job transfers three days a month so that Whipker can learn more about management and GCI. This Baxter can also be expected to say that he would be happy to review with Whipker on a regular basis what he (Whipker) had learned on these jobs.

6. Would expect this Baxter to tell Whipker that he should soften up a bit and temper his tough attitude without becoming a fake or changing his basic style. He would also be expected to offer to attend the Dale Carnegie Course with Whipker and to suggest that they both could benefit from it.

Average Performance

. Provides general developmental suggestions but usually fails to make a personal commitment to aid in Whipker's professional development.

. Shows moderate interest in Whipker's development; may direct Whipker to seek developmental suggestions elsewhere.

What an average performer might do:

5. Can expect this Baxter to ask Whipker to head up the Project of the Year Committee, to offer help in organizing the committee, to offer and to talk with Whipker about problems as they arise.

4. Can be expected to offer Whipker help in his general development.

3. This Baxter would suggest that Whipker obtain a list of courses from the personnel department and take the ones he felt he needed.

Low Level Performance

. Expresses little or no interest in Whipker's professional development.

. Fails to offer developmental suggestions or provides poor advice regarding Whipker's professional growth and development.

What a low level performer might do:

2. This Baxter could be expected to state that Whipker would have to work on his own to accomplish changes in his style.

1. If Whipker asked this Baxter for a list of things he could improve upon in order to get promoted, would expect him to be unable to come up with anything and to state that he didn't believe in training and development anyway.

G. MOTIVATING WHIPKER

Providing incentives for Whipker to stay at GCI and to perform effectively; making commitments or motivating Whipker to perform his job well, to remain with GCI, and to help GCI accomplish its objectives; supporting Whipker's excellent past performance versus providing little or no incentive for Whipker to stay at GCI and perform effectively; failing to make commitments encouraging Whipker's continued top performance; neglecting to express support of Whipker's excellent performance record.

High Level Performance

. A high level performer provides encouragement and appropriate incentives to persuade Whipker to stay with GCI and to perform effectively on his job.

. A high level performer uses appropriate compliments of Whipker's technical expertise and excellent past performance to motivate Whipker to meet the objectives of the department.

What a high level performer *might do:*

PERFORMANCE EXAMPLES

7. This Baxter can be expected to tell Whipker he is "laying it on the line," and to state firmly that he and GCI need Whipker because of his impressive expertise and proven ability to get the job done. Can also expect him to ask Whipker's support in terms of continued top performance, to pledge in a sincere manner to do all he can to get Whipker more support in his present job, and to promise to seek out for Whipker more information about management and higher level technical job openings within GCI.

6. At the end of the interview, would expect this Baxter to reiterate the commitments he had made to Whipker with regard to inquiring about job openings in higher level technical positions within GCI and also to suggest that Whipker's excellent past performance and continued high level performance will increase his chances of getting such a job.

Average Performance

. An average performer compliments Whipker appropriately at times but is only moderately effective in using these compliments to encourage high performance, loyalty to GCI, etc.

. An average performer provides some incentives for Whipker to perform effectively and to stay at GCI, but generally makes few if any personal commitments to support Whipker in his job.

What an average performer might do:

PERFORMANCE EXAMPLES

5. Would expect this Baxter to offer Whipker the United Fund job again in such a way that Whipker would agree to take it on, and then to say that he knew Whipker would do a good job because of his success in the past.

4. Throughout the interview, this Baxter can be expected to emphasize his desire to keep Whipker in the company.

3. Can be expected to tell Whipker he appears to be doing an adequate job in his department but that he could probably be doing better.

Low Level Performance

. A low level performer fails to express support for Whipker's past performance.

. A low level performer provides little or no incentive for Whipker to remain at GCI.

What a low level performer might do:

PERFORMANCE EXAMPLES

2. This Baxter could be expected to tell Whipker to "keep plugging" on his job because GCI needs to increase its earnings.

1. After discussing Whipker's problems within GCI, this Baxter would suggest that he (Whipker) leave the company since he was so dissatisfied

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APPENDIX 2

Final Scripts for Recruiter and Manager Actors

Script A

Recruiter: Come on in and have a seat, John. How are things going today?

Recruitee: Oh, pretty good. I just got done with a big term paper.

Recruiter: Great. What was the subject?

Recruitee: It was a paper on industrial engineering.

Recruiter: Gee, that sounds all right. Is that one of your favorite courses?

Recruitee: It's okay, I guess. It's not really as enjoyable to me as like straight mechanical engineering.

Recruiter: I see. Well, listen John--do you have any particular questions about the company?

Recruitee: Well, I'm sure I have some, but maybe they will come out later in the interview since I really hadn't thought about it too much ahead of time.

Recruiter: Well, okay then. I guess we can get started. Maybe we should talk about what your goals are for the future and what type of a job you might be looking for.

Recruitee: Well, basically, I'd like to find a position where I can use my degree in mechanical engineering. Obviously, I'm also interested in a position where I could advance myself.

Recruiter: How far would you like to go in an organization?

Recruitee: As far as I possibly can.

Recruiter: I see. What kind of grades have you had so far?

Recruitee: I average about 3.0 on a 4.0 scale.

Recruiter: That's pretty good. Have you thought of any other questions you might like to ask?

Recruitee: Well, I'd like to hear some more about the salary, the benefits, and what the working conditions are like.

Recruiter: Well, I think the salary will be competitive. The working conditions are really very pleasant. For example, each individual has an office of his own. The benefit programs

are comprehensive. We offer full medical coverage, superior holiday and sick leave plan, and we may go into an optional dental care plan feature. I think all in all, you'll like our organization. By the way, what extracurricular activities were you involved in in high school and college?

Recruitee: I've been active in the mechanical engineering club and I was also vice president of my junior class in high school.

Recruiter: Do you enjoy those positions of leadership?

Recruitee: Yes, although I really haven't had that much experience, I think I like to work with others and sort of organize their activities. By the way, can you tell me a little bit more about the benefits package?

Recruiter: Yes, we just had an outside organization come in to review our package. I don't know the details as to the specifics of what they found, but I can find them out for you. Basically, I think you'll find that your life insurance and medical coverage are quite adequate. The insurance would probably turn out to be about one and a half times your basic salary. Have you had any other job offers, John?

Recruitee: I've only had two interviews so far, and I'm still in the process of looking around, so I guess you could say I really haven't had anything too concrete yet.

Recruiter: Can you tell me a little bit about your home life? What were your parents like? Specifically, I guess I'd like to know what your dad's occupation was and how he influenced you to become an engineer.

Recruitee: Well, basically, I think I come from pretty much of a middle class background. My rather was a production engineer and although he wasn't really trained in engineering, he sort of steered me into it since he felt I could really do well with a degree of that sort.

Recruiter: Did they pay for your expenses or your education?

Recruitee: Ah, well, I paid about 20 percent of it with part-time jobs, but my parents helped with the rest.

Recruiter: I see.

Recruitee: Well, what happens after this interview?

Recruiter: Oh, I take this information back to the company and think about it for a while, and then I'll be in touch with you.

Recruitee: By the way, I did have one other question. What are the chances for advancement in your company?

Recruiter: I'm glad you asked that, John. We firmly believe in promoting advancement opportunities at GCI. We have an active personnel development staff that assesses and offers a career development for individuals such as yourself. This makes sure that your abilities are being best used and which is a benefit to you and the company. Experience has shown that men such as yourself move into positions of higher responsibility in from one to three years. By the way, John, how would you describe yourself with regard to strengths and weaknesses?

Recruitee: Well, I think I have good technical competence and the ability to get along with other people.

Recruiter: What about the other side of the coin? Do you feel that there are any weaknesses which you could be working on and developing before you begin your career?

Recruitee: Well, sometimes I have trouble putting things down in writing, and I really don't like to write long, involved reports and that sort of thing.

Recruiter: I see. Well, listen, John. We'll be getting back to you soon. I certainly appreciate talking to you and thank you very much for your time.

Recruitee: Okay. Thank you.

Script B

Recruiter: Hello. Are you John Jones? Sit down and I'll get you started. Okay, John, we are going to start by outlining the positions that are relevant to your consideration then I'll ask you some questions about your background experience, and finally, you can ask any questions you might have about GCI. Well, GCI has a couple of openings that you might fit into with your background. They're both technical positions that will require a good deal of technical competence as well as a lot of initiative, and they can certainly be expanded if you can handle additional responsibilities. One's a position doing fairly basic research toward developing new subminiature electronic components. We really had in mind looking for someone with more experience than you, but since you seem to indicate you've had some course work in micro-electronics, you might be able to make it, I don't know. The other position is more applied. We are designing a new plant, and we need someone to assist with developing the electrical system, but primarily to work with higher level managers--plant level managers--to keep them clean on what we're doing, and to justify the designs we come up with. I came from the electrical engineering department myself, and I've had some pretty bad experiences trying to convince those hardheaded manager level types that our ways of doing things are better than what they want and I guess it can be pretty vicious sometimes when a high-up fellow gets mad at you, but we can't make any promises that engineering isn't able to keep.

Anyway, those are about the only jobs we have in electrical engineering right now. Do you have any real training or experience with subminiature microdesign?

Recruitee: Well, as I've indicated, I've had a course in micro-electronics where we covered IC chips and all that and I know a lot about macrocircuiting that could possibly be transferred . . .

Recruiter: But you have not had any real research experience or anything like that, have you?

Recruitee: Well, I did do honors research for half a year. I worked for my advisor, doing some stuff on modifying solid state macrocomponents.

Recruiter: But no microresearch, right?

Recruitee: No, I guess not.

Recruiter: That's too bad; let's see now, what else do I want to know?

Recruitee: Excuse me, but could you tell me a little about the company and the benefits and so on?

Recruiter: I'll get around to all that in a minute. So you've had work in microcircuitry, and a little research experience in macro, huh? Did you have any research reports to write up?

Recruitee: Yeah, I had to do a paper on research I did for my honors course.

Recruiter: What kind of a grade did you get?

Recruitee: Well, the honors courses here are graded S-U and I got an S and my advisor really seemed to like it. Do your research people do a lot of writing?

Recruiter: I don't know--about the same as anywhere, I guess. How about the other job--have you had any experience on plant level development?

Recruitee: Well, no, I guess most of my work has been oriented toward smaller systems. Would GCI provide any training, though? I could probably pick up enough to be helpful in planning, and if I was new in the area myself, it might help me to explain things to nonengineers. You know, I wouldn't take the concepts as much for granted.

Recruiter: I'll get to our training programs in a minute. Right now, what makes you think you would be a good performer at GCI?

Recruitee: Well, I've done pretty well in electrical engineering here. I guess I feel that indicates that I know quite a bit about the fundamentals of electronic theory and applications, and I can learn the things I don't know pretty quickly if I have to. I've had some research experience, and I think that would transfer to other research settings. I get along pretty well with other people and I like the field, so I enjoy working in it and keeping up on new developments. I guess I'd say that I have some theoretical knowledge that I could contribute immediately, and that I have a lot of potential for developing practical knowledge.

Recruiter: Okay, let's follow up on one or two things you just said. Tell me about how you got along with other people working on research projects and things with you, especially other students.

Recruitee: Well, like I said, we all got along pretty well. We all knew what we were doing, and we liked to work together to help solve common problems, and we didn't have any trouble coordinating with each other to get our project done.

Recruiter: This was on the honors project?

Recruitee: Yes.

Recruiter: How much of that did you plan and work out, and how much was assigned and coordinated by your project director?

Recruitee: Well, my advisor assigned the goal and made some suggestions on how to carry it out and he was always available for advice, but we had to come up with a lot ourselves--like ideas on how to actually do the things he wanted to get done. And we made some suggestions on how to make changes in the plans and some of those were adopted.

Recruiter: Did you have the responsibility for getting things done and monitoring progress, or did your advisor check up frequently?

Recruitee: Well, both. He met with us once a week to discuss progress, and some of the team fell behind some, but I was always on time with my parts, so I guess I didn't really need the progress meetings except to find out where other parts of the project were relative to mine.

Recruiter: Ever done any supervising?

Recruitee: Well, not really. On our project, like I said, we had to keep up with what everyone else was doing, and we all tried to help each other along, and tried to get the slow people up to schedule, but we didn't really have any responsibility to see to it that other people's work got done.

Recruiter: Okay; I guess that's about all the information I need. Now, what would you like to know about GCI?

Recruitee: Oh, well . . . I guess I'd like to know a little bit more about these jobs and what I could expect to be doing in the long run, and I'd like to know more about the benefits, too.

Recruiter: Well, I guess I've already told you most of the specifics about the two job openings. One's in research designing subminiature components for radio control circuitry. The other's in plan design, but that one doesn't seem too applicable to you. As to future prospects, why don't you tell me what you picture yourself doing, say in ten years from now?

Recruitee: Well, I don't know. I mean, I guess I'd like to work in research, and maybe head a research team. I guess I'd like to start out in research and work on a variety of projects to broaden my knowledge base and work with a couple of research assistants to see what I like to do and how I like supervision. After that, I'd decide whether I preferred staying primarily in research, or branched out into supervision and research administration.

Recruiter: Mmm-hmm. Well, that sounds pretty good. Any other questions?

Recruitee: How about the salaries for these positions?

Recruiter: Oh, yes. I guess everyone gets around to asking about that sooner or later, eh? Let's see, the research position offers $11,000 to $15,000 to start. With your experience, I expect you'd start a little up from the bottom of the range--around $12,000 or $12,500 probably. The other one is ranged a little lower. With no experience in the area, that would start around $10,000. The company provides a variety of benefits--they're all explained in this booklet. I guess they're about the same as any other firm in the area, so you've probably heard it all before. If you do have any questions about anything, I want you to feel free to get in touch, okay? Well, it's been really nice talking with you today, John. We'll get in touch with you in the next week or so to tell you one way or the other about an offer. Thanks again for coming in.

Recruitee: You're welcome, I mean, thank you, sir. I'll be getting in touch with you.

Script C

Recruiter: Hi.

Recruitee: Hello.

Recruiter: You are . . .

Recruitee: John Jones.

Recruiter: John, nice to meet you. Well, John, I hope I didn't keep you waiting too long. I'm afraid that we're running a little behind schedule today, so let's get right down to business.

Recruitee: No--that's fine.

Recruiter: Good, I'd like to begin by talking to you about Gordon Consolidated Industries and then I'd like to ask you a few things. You can ask questions after that, but feel free to interrupt along the way whenever you wish.

Recruitee: Sure, thanks.

Recruiter: Well, John, as you probably know, GCI is a medium-sized manufacturing firm, with most of our business in one area of electronics or another. We also produce a wide variety of electrical applicances, as well, and we have a strong demand for people with both development and production support skills in these areas. Now since we're a medium-sized firm, I think we can offer all the advantages of both small and large companies, with relatively few disadvantages. Now we're small enough that you're never lost in the masses. And, we're large enough, and I suppose most important, profitable enough that we can attract a lot of important accounts, both from industry and from government. That means a lot of really interesting problems for you to work on. It's really a gratifying place and you can take a good deal of personal pride in the excellent reputation our products have built up over the years.

On the negative side, I suppose our small size tends to limit the opportunity for advancement into extremely high organization levels, but we keep our salaries high enough to be competitive with our larger rivals, and as I said earlier, the diversity of our clientele keeps our work challenging and stimulating, and no matter what level you work on, there are strong rewards--both immediately and in the long run.

The position I'm interest in filling is as a Research Engineer in the Technical Services Department of our Electronics Division. Now, initially, the job involves working with consulting engineers and project engineers to develop electronic packages meeting the specifications our consumers require. The research engineers do a lot of the dirty work in actually developing and testing potential products. Also, we provide an initial six-month training program to ensure that you would be well informed on the technical aspects of the product lines in this division.

Now, the beautiful thing about this research position in Technical Services Department is that it nearly always leads to a consulting position in the department. Now these are the people who deal with project managers and client engineers to really design all the innovations we come up with each year. The job is fantastically stimulating for anyone at all who has any interest in the field, and the company recognizes the importance of both research and consulting engineers by providing excellent salary/benefit package to boot.

As far as the nature of individual project as a research engineer might work on, I'm afraid I can't be too specific partly because, as I mentioned earlier, it is so diverse, and partly because of the work we do on defense projects which is classified, but generally it involves research and development work. And, as I said earlier, our training program would provide all the background you'd need to start you off on a productive career.

Well, here I've been doing all the talking and haven't gotten to meet you at all. Suppose we start our discussion with your telling me a little about your interests in electronics and engineering and how those might fit in with the job I've been describing.

Recruitee: Well, that's a pretty broad area, given all the things you've said I might be doing at GCI, but basically, I <u>am</u> interested in electronics generally, and research especially. I've had some lab experience in subminiature circuitry that I really enjoyed. I had a professor who was fantastic at getting you to ask questions <u>why</u> things happened in systems, and what might happen if you changed the system, and how to change a system so you might get a desired result. I guess I enjoyed that lab course so much, a lot of the attitude has stuck with me.

Recruiter: Well, that's fine, John; that's very impressive. Now, can you tell me about the work you've done?

Recruitee: Sure. I've had lots of lab courses, but most of those involved following pretty much set procedures--you know, it makes you familiar with the components and the equipment, but it really isn't very creative. I have had a part-time research job, though, where I got to work on some projects for my advisor. They were pretty small, but I got to design the studies myself, and then run them after he made some small improvements.

Recruiter: That's good, John. It's always nice to get interviews with people who have had experience in relevant areas. You know, this job will involve a lot of interaction with people--you know--with project team members. Do you like other people?

Recruitee: Well, I lived in my fraternity house, and you've got to get along so well you know when you live in such an informal setting. I guess it's kind of like having 20 brothers in your family. As far as my professors, I always got along fine with them too. I only knew a couple very well besides my advisor, but they were always good about letting me know what they expected of me, and when someone does that, it's not too hard to do it. I like working with my friends on radio projects and such things.

Recruiter: That's fine, John. Well, I see we're running a little behind schedule here, but I want to be sure you get all the information that you need and want here before we finish. I should tell you first about the monetary benefits we at GCI could offer. The salary range for this job is $8,500 to $10,000 a year, depending, of course, on your experience and your ability. In addition, GCI has a range of benefits outlined in this pamphlet. It includes medical coverage with an option for a health maintenance program--are you familiar with such kinds of programs? Good. We also have a $10,000 life insurance, profit sharing plan, and for our professional people, a variety of recreational facilities that are described in there. I'd like you to look this over at your leisure and call me personally if you'd like any more information about anything. My number is in the front of the pamphlet I gave you. Do you have any other questions I can answer for you now?

Recruitee: Well, I had a lot when I came in, but I guess you've answered just about everything without me even having to ask them. I guess I have all I need to know.

Recruiter: Fine, John. I'm glad you could stop by today. It's really been a pleasure talking with you. If you do have any other questions about GCI or the job, please call me and I will do whatever I can to get the information to you. Now, we will be completing our interviews in about a week, so we should be able to let you know about our decision in ten days, okay?

Recruitee: Thank you.

Recruiter: Nice meeting you.

Script D

Recruiter: Good morning, John.

Recruitee: Good morning.

Recruiter: How are you?

Recruitee: Fine.

Recruiter: Sit down please. Would you like a cup of coffee.

Recruitee: Oh, no thanks, I'm not much of a coffee drinker.

Recruiter: Is that right? Well, I'm going to have a cup. Okay, well maybe we better get started. We don't have too much time. As you know, I represent Gordon's Consolidated Industries, GCI for short. We're interested in hiring a number of people into some technical and engineering positions. These particular positions actually require a three to six month training program at the company's expense. What I'd like to do today is first explain some details about the positions, have you ask some questions about the position and then I'd like to delve into your background a little bit and ask some questions about your experience. I guess this sounds a little informal. Please ask questions as we go along; this is if anything comes up in your mind.

Recruitee: Okay, fine.

Recruiter: Based on your electrical engineering background, as I can see, we have three openings that might be of interest to you. First, there are two engineering positions in California in our Los Angeles plant. They're staff positions working for assistant plant manager. Then, there's a job in Chicago which might be of interest to you that's working directly four our manager of operations in our Rustwick operations. Frankly, I'm most familiar with the L.A. jobs in California because that's where I work. I might be able to fill you in a little bit also on the job in Chicago. Okay, let's just take a real quick look at the California staff positions. If you were hired, you would first of all go for a four week training program. After completing the training program, you'd go to L.A. and to work for a fellow by the name of Fred Snyder. He's the assistant plant manager. Your main duties would be principally assisting with technical matters and also other managers in the plant. You'd probably get into a few other things also. Well that's enough detail about the California jobs, John. Why don't I just throw it open to questions to <u>you</u>, at this point. Is there anything that you'd like to ask about GCI or the three positions?

Recruitee: Well, I guess I'm not really sure what to ask first. Actually about the California and the Chicago jobs--they both sound pretty good to me. I was wondering if you would describe just what I would be doing for example in the L.A, plant?

Recruiter: Sure, John, I know I skipped over the explanation fairly quickly. Fred Snyder has as one of his main duties the monitoring of the assembly line in the plant. Also you would be in charge of evaluation of suggestions that come in and of course as you learn more about the operation, you would be asked to give technical suggestions yourself. Another thing that you'd be involved in is helping in the writing of proposals for government contracts.

Recruitee: Okay, you said before that you really don't know too much about the Chicago position, but I was wondering if you would tell me what you do know about it.

Recruiter: Sure John. As you know the job is in operations and you'd be assisting the department head at the Rustwick plant. Operations is the type of thing where its the day-to-day operations and the day-to-day work in it. I'm sorry I can't give you too much more information about that. You would get an opportunity however to look at managment in this type of a job. Are you interested in management by the way?

Recruitee: Yes, I think I am.

Recruiter: Good! Okay, well you wouldn't be directly in charge of people right off the bat in the Chicago job, but essentially you'd be in a training position to get into a management job where you would have people reporting directly to you. In terms of particulars about the job I'm afraid I just can't give you a whole lot more information. I'll tell you what, I can find out more about the job and possibly you could give me a call tomorrow and maybe I can have some information for you.

Recruitee: Okay, I really would like to get some more facts, so I guess I will give you a call then. Another question I have is about the pay and the chances for promotion at the California and Chicago jobs.

Recruiter: Right--I was wondering when you would ask. The starting salary in the California jobs is $14,000 per year. In addition to that you would be eligible for a $25,000 term life insurance policy and exce-lent medical coverage. Would you like me to break that down?

Recruitee: No, that's okay. Are there any other fringe benefits?

Recruiter: Sure, the company maintains a number of facilities, which are free to you and your family. There's a tennis court, a swimming pool, a golf course, a gymnasium, and GCI also has a program where you get a cost of living increase with your salary arrangement. I guess you'd think of that as a benefit, as a fringe benefit. By the way, these fringe benefits are the same at our Rustwick plant in Chicago, also, but I don't think they have a golf course. To continue answering your question John, that you asked previously, the annual salary at our Rustwick plant operation job is $14,500 per year. Both jobs really look outstanding. In fact I think there's a very good chance that you could move into a promotion type position in a reasonable length of time. In fact college graduates now are moving into positions above their entry level position. Usually within about a year and a half.

Recruitee: Is that the average promotion time for copanies like GCI?

Recruiter: Probably so; the economy seems to have a lot to do with that type of a thing also, just as much as does the individual company policy. Do you have any other questions, John? Well if you don't I'd like to ask you a few questions about your background and goals and ah basically the reason I want to do this is we, of course, want to make sure that we hire persons to GCI that are interested in the company and that will make a contribution to the company. And that's of course the reason we want to see if you're compatible with GCI.

Recruitee: Sure, fire away.

Recruiter: I see from your application here that you attended the Illinois Institute of Technology in Chicago and that you were an electrical engineering major. Were your courses largely theoretical, John, or did you get into applied work at all?

Recruitee: Well, the first two years were quite theoretical and principles oriented but a number of my courses in the last two years emphasized the more practical applications.

Recruiter: I see. Can you think of one or more of those courses?

Recruitee: Well, yes, come to think of it, there was a class I took just this last year called "Applications of Electrical Engineering Principles." The class project in the course was to plan the complete electrical system for a new building.

Recruiter: I see. How far did you carry this through?

Recruitee: Well, the building itself was a hypothetical one so I guess our final product was just the written plan containing specifications, materials required, and just how we'd go about putting in this new electrical system.

Recruiter: I see. Do you feel qualified to plan the electrical systems for a building and follow it through and see that it's properly installed?

Recruitee: Well . . . I probably couldn't do it myself, but I think I could provide strong assistance to a more experienced person but, well, some of the details I think would be beyond me right now.

Recruiter: Okay, it helps us a great deal, of course, to get a straight forward answer as to your practical experience, so I appreciate that. Did you have any summer employment where you got some practical experience?

Recruitee: No, not really. I worked during the summers but not at jobs that would advance me professionally--would you believe driving a truck.

Recruiter: I understand. Well, we're running a little overtime, John, but I'm really glad we had a chance to get together and talk about your qualifications relevant to these positions. Thanks a lot for coming by.

Recruitee: Thank you.

Script E

Recruiter: Uh--yes, come in.

Recruitee: Hello, my name is John Jones. I was supposed to interview with GCI today?

Recruiter: Yes, yes. Please sit down. My name is George Strickland. How are you today?

Recruitee: Oh, fine, I guess. This is the third interview I've had today so I guess I've learned a bit about job interviews.

Recruiter: Good. Well, I'll try to give you some information on my company.

Recruitee: Thanks. I'm very interested in your company.

Recruiter: Oh, really? What sort of work are you interested in?

Recruitee: Well, I had my mind on some kind of job in the engineering field. I guess I'd like to become a manager someday but my training is in the engineering area. Say, could I get into management with your company?

Recruiter: Well, it depends. You never know what is going to happen in a company, but with your background though, I would think you have a pretty fair chance.

Recruitee: What kind of jobs are open, by the way?

Recruiter: We're in a state of flux right now, but some jobs may be opening in the engineering area but I'm not sure how that will turn out. We do have one job opening at our Rustwick plant in Illinois. Are you interested in living in that part of the country?

Recruitee: Well, I guess that depends on the kind of job it is. What would I be doing in that position?

Recruiter: Essentially, you would be learning the ropes for about the first six months or so. You would be working with the head of operations in the plant, getting used to the operations there. You would probably be offering technical advice to the boss and others concerned with the plant operations. You do have some technical expertise don't you? I mean, you picked up some technical work in college or something?

Recruitee: Well, I'm not sure that my summer working experience is relevant, but I have worked as a fill-in supervisor in a plant between junior and sophomore years and between junior and senior years.

Recruiter: Okay. Well, that's good. It may be relevant. It's hard to tell. What was your major again?

Recruitee: Mechanical engineering.

Recruiter: Oh, yes. Well, what else did you want to ask me about the position? Oh, by the way, here is a brochure describing some of the company's benefits. If you want to leaf through it now you can and ask me questions. Otherwise, you can look it over in your leisure time, but I think you'll find our company is fairly competitive in terms of opportunities, fringe benefits, and so on.

Recruitee: Sure. This seems like a nice brochure. Can you tell me a little bit more about the benefits package?

Recruiter: Sure. We have a life insurance policy that we provide for new employees. Let's see, yes, it's a $20,000 term policy which is convertible to straight life if you wish to do that later. We have a hospitalization plan, as well. Everything is covered except dental expenses for you and your family. You do <u>have</u> a family, don't you?

Recruitee: Oh, I have a wife but presently we don't have any children.

Recruiter: I see. You and your wife would be completely covered at no cost to you.

Recruitee: How about chances for promotion? What chance would I have to move into a higher level position fairly soon? I have aspirations of being a manager, as I told you.

Recruiter: Well, most of our college graduates who perform well at the entry level move up within one to two years. In terms of managerial jobs, it's hard for me to tell how fast positions will open. If we continue to expand at the present rate that we've been expanding in the last five years, I would say your chances are excellent for getting into the management level.

Recruitee: Well, that sounds pretty good. Are there a lot of other persons trying out and applying for this job?

Recruiter: I think so, but it's hard to say. I just arrived here today and I've got two days left. I suppose quite a few people will be interested in the Rustwick job in Illinois. How many people attend school here anyway?

Recruitee: I think about 13,000 full time.

Recruiter: I see. Is it a nice place to go to school? This is the first time I've been to Northern's campus.

Recruitee: Well, yes, I have found it pretty enjoyable. What kind of job do you have with Gordon's?

Recruiter: I'm with the personnel department at headquarters. I do a lot of selection interviewing and some labor relations work. The next three weeks I'll be busy recruiting on college campuses--a fairly rough travel schedule. Yes, overall GCI has been very good to me. The company has been very good.

Recruitee: Well, is that all you really wanted to talk about, Mr. Strickland? I think I'm a little overdue for my next interview.

Recruiter: Huh? Oh sure. I have your application here and I'll let you know about the Rustwick position soon. Let's see; I do have your address. Yes, okay. Well, I'll be in touch. Thanks for stopping by.

Recruitee: Thank you.

Script F

Recruiter: Come in. Hi, I'm Jack Smith; I'm the recruiting representative from GCI.

Recruitee: John Jones. I was supposed to have an appointment for 2:30.

Recruiter: Right. Have a seat. You know, I was looking at your resume, and I notice I graduated from the same school that you did.

Recruitee: Oh, really?

Recruiter: I graduated in 1964. That was back in the good old days. I remember having to get up practically in the middle of the night for finding a parking spot on campus there--I had an 8:00 intro. chemistry class from old Professor Walinsky--and it wasn't too funny at the time, but as I look back on it, it's kind of amusing. You can imagine--150 sophomores, sitting in there, no one taking the time to brush their teeth, and most of us pretty well hung over.

Recruitee: Well, I guess it's still the same old place then. One of my roommates took a chemistry class just the other quarter, and he was always complaining about the workload that the professor dropped on him and I think he called him "Old Wally."

Recruiter: Yes, that sounds like him all right. You know, John, I'm recruiting here for sales opportunities with GCI, and I'd like to take this opportunity to discuss with you and GCI and learn a little bit about yourself as well.

Recruitee: Okay.

Recruiter: All right. What I'd like to start off with is if you can tell me something about your early family background, and your education, extracurricular activities and things that you enjoyed doing.

Recruitee: Well, as far as my early family life goes, I was born and raised right here in Granbury. My father ran a corner grocery store till a few years ago, and he then got a job as manager of a supermarket. That's what he does now, by the way. I suppose I got interested in sales through working with him part-time and hearing him talk about his job.

Recruiter: Go on.

Recruitee: Well, I attended Granbury Central High and graudated in '69. Just what else did you want to know?

Recruiter: Oh, what sort of extracurricular activities did you enjoy in high school?

Recruitee: I worked part-time in my dad's store--about ten hours a week. Also, after my freshman year, I participated in band three nights a week for practice.

Recruiter: Did you go right on from high school to college?

Recruitee: Yes, I did. At first I really didn't know just what I wanted to do in college, so I majored in English literature. Then, I guess I started thinking more and more seriously about careers in sales, so after my freshman year, I switched into an economics major with a heavy minor in business administration.

Recruiter: Well, that's quite a switch all right--from your English lit to economics. How did you enjoy the economics courses?

Recruitee: Well, I enjoyed them well, I suppose. I mean, I felt that if I was going to make it in sales, I should at least have a background in general economics. I didn't get too excited about much of the theoretical stuff, but some of it was okay.

Recruiter: How about your business courses? Did you enjoy these?

Recruitee: Well, there again it seemed like they were pushing a lot of theoretical stuff on us that really didn't seem to relevant, at least to me. But I really did like the more applied courses, introductory management, for example.

Recruiter: When you were in college, did you belong to any organizations that gave you an opportunity for leadership positions, or did you get involved in any activities that were sales oriented to give a taste of what sales might be like?

Recruitee: Pardon?

Recruiter: Well, did you get involved in any activities that were sales oriented at all?

Recruitee: Well, yes as a matter of fact, I spent two summers traveling around the state selling encyclopedias.

Recruiter: I see. How did you do on that job?

Recruitee: Well, I guess I was pretty good. After my second summer, they gave me an award and a nice bonus for selling more than any other summer salesman. I enjoyed it pretty well.

Recruiter: Good. Let's just change the gears a little bit here. I'd like to tell you something about GCI and if you have any questions at any time, just feel free to interrupt me. Okay?

Recruitee: Fine.

Recruiter: We're located in Rustwick, Illinois which is a midsized city of about 125,000 in population. Rustwick is a very pleasant place to live. And I think you're also aware that GCI has the reputation of being a good company to work for.

Recruitee: Would I have to move to Rustwick?

Recruiter: Well, John, the headquarters is there, and I think most of our sales people are there. Although we do have a number of other facilities located throughout the country, I am aware that some of the sales positions require a substantial amount of traveling. You might be on the road quite a bit if you get one of those positions. Say, do you enjoy symphony concerts at all?

Recruitee: Why yes, I do.

Recruiter: You mentioned you were in the band. Rustwick's symphony orchestra has got a nationwide reputation. They've got critics' acclaim from New York to San Francisco. We just recently built a new orchestra hall. It's one of those fantastic places, and you can see from that that Rustwick is a good place to live and citizens there are culturally-minded.

Recruitee: Well I guess that's really fine, but getting back to the point. I've only had two summers worth of experience in sales, and I'm sure I could use some sort of sales training. I was wondering just what kind of programs GCI has.

Recruiter: I'm glad you asked that, John, because its been GCI's corporate philosophy for a long time to do as much training and educating of its employees as is possible to make sure they're fully actualized, and can really live up to their career potentials. I'm sure you can't find any other company that has done as much in this line as we have. In your particular case, I think there's probably an orientation course of a brief duration and then you would be involved in a six-month further orientation course involving both on-the-job training and marketing techniques as well as a classroom portion of it. Not only initially, but throughout the time you'd be with GCI, we have continuing programs for higher level management and others as well.

Recruitee: Another thing I was thinking about was, well I'm going to be getting married in a couple of months, and I guess I want to make sure my family, when we get one, will be adequately covered in terms of medical and hospital benefits, you know, if those things should ever come up. And I want to know just what kind of fringe benefits GCI has, especially the insurance and medical benefits?

Recruiter: I can understand your concern in those areas, and I think it's good that you're interested in finding out before you accept employment. When I was first looking for a job, I didn't think too much about those kinds of benefits. Luckily, I did end up at GCI, and, of course, they have excellent benefits. We are concerned about the welfare of our employees. That may be at least part of the reason why we have such an extremely low turnover rate for our industry.

Recruitee: Could you be a little bit more specific about these benefits?

Recruiter: Sure. GCI prides itself on the fact that they're more than competitive with all the others in the industry in terms of salaries, pensions, insurance--any other kinds of benefits like that. Say, it's getting a little bit late, here. Wish I could spend more time. But let me give you this brochure for GCI and I think that'll answer many of the questions you might not have been able to ask here in this short time. I do appreciate your taking the time to come in and have a talk with us.

Recruitee: Well, thank you.

Recruiter: Have a nice day and good luck to ya!

Recruiter: Come in. You must be John Jones.

Recruitee: Yes, how do you do?

Recruiter: Well, as you know, GCI is recruiting on college campuses this year and I am here to answer any questions you might have and perhaps to take an application from you. Let's start out by talking about why you are interested in GCI.

Recruitee: Yeah, well, I guess I'm at that stage where I'm looking for a job, since I'm about to graduate. I'm a psychology major, and someone I know told me you might be interested in some openings in the personnel department.

Recruiter: Yes, we do have openings for new graduates in several areas that could use a psychology major, such as personnel and other areas in our management training program. I can tell you about these jobs, but I'd like to learn something about you first.

Recruitee: Well, like I said, I'm a psychology major and I really like to work with people. I got good grades in psychology and I thought that I should try to get a job in this area.

Recruiter: Have you had any job experience?

Recruitee: Not really--my folks paid for my education and I've just done some odd jobs like being a camp counselor and such things. Oh, and I also did a three-month internship with the Metro Council--that was really a great experience, and I learned a lot on it.

Recruiter: But you haven't had any real jobs?

Recruitee: No, I guess not.

Recruiter: How about your interests?

Recruitee: Well, I really like to ski, and sail, and a lot of athletic stuff.

Recruiter: Were you ever in any organizations that gave you any leadership experience?

Recruitee: If you count social organizations like fraternities, I guess I have been in charge of a lot of things. This year I am social director, and last year I was elected president of the Intrafraternity Council. Like I said, I really like to work with people.

Recruiter: How did you hear about GCI?

Recruitee: One of my best friends from the fraternity council worked there for three years and he said he really liked the way they treated their employees. That kind of stuck with me, because you know that's the kind of personnel department I would like to get into--not one who is out to exploit the employees. Is it really all that good?

Recruiter: Yes, GCI does have a very good record of being a good place to work. We have very, very generous pension and profit-sharing plans. The salary and working conditions are considered to be among the top in the industry. Some of our programs are outlined in this brochure, which I give to you to take home. This is probably a good time for me to answer other questions you might have.

Recruitee: Okay . . . with the job market being what it is, I'm really pretty worried about finding a good job with a good company--how many applications do you typically have for your openings?

Recruiter: Right now, it is pretty much of a buyer's market, as you might guess, and we interview about 200 people for every position we have open.

Recruitee: That's pretty discouraging.

Recruiter: I agree, but that's the way things are right now.

Recruitee: If I were hired, what about relocating? My fiancee is finishing college right now and I'd really hate to have to move.

Recruiter: We have both local openings and positions elsewhere, so there is a chance that you might have to move if you are hired. Have you given any thoughts to what areas of personnel you might be interested in?

Recruitee: Well, they don't give you much practical training with a psych major, so I guess I'm not too familiar with what is available. I only know that, well, face-to-face contact is important.

Recruiter: Okay, that would probably mean you would be more interested in personnel rather than industrial relations, right?

Recruitee: Well, I think so, but could you tell me more about it?

Recruiter: Okay, in personnel you'd be involved with activities like employee recruiting, interviewing, placement, training and development. You could also expect to spend quite a bit of time counseling employees on such things like performance, benefits, promotion, retirement, and so forth. In industrial relations you'd concentrate on things like wage and salary administration, collective bargaining, grievance handling, labor market surveys, and similar type work.

Recruitee: Yeah, I'm pretty sure I'd be more interested in personnel.

Recruiter: If you'd be interested in our management training program you could learn a variety of jobs in the organization first, like accounting, production, marketing, personnel, advertising, and so forth, rather than concentrate in any one specific area.

Recruitee: That sounds pretty interesting--what do management trainees make?

Recruiter: Right now, about $600 a month to start, although it goes up fairly quickly after the first year. You could expect to be making $12,000 in a year or two and more after that. Do you have other questions?

Recruitee: Well, this is a pretty touchy subject, but I've heard that GCI is involved in making chemicals that are used in Army biological warfare research. I guess I somewhat object to this on ethical grounds, and I was wondering if this rumor is true.

Recruiter: Well, yes, we are involved in chemical work of this type, but it is a very small part of the total picture. In fact, it will probably be phased out the next two or three years, so I wouldn't let that bother you. I'm not too familiar with this area myself, but I can arrange for you to meet someone who could answer your questions more fully, if you decide to put in an application.

Recruitee: I see, what with the shaky economy, how is GCI's overall financial picture?

Recruiter: Well, times are tough right now, but we expect to weather it okay. We are trying mainly to cut back in areas where it won't hurt our employees, although some of our training programs are suffering a bit.

Recruitee: Well, how does that apply to job security?

Recruiter: GCI is very careful in only hiring people that need, so security shouldn't be a factor if we take you on. Joe, I see our time is up. Why don't you take this application and our brochure home and have a look at it. If you think of anything specific you would like to ask, I have some free time tomorrow about two o'clock for people who would like more information. You could come back then if you wish. You can also turn in this application if you have made any kind of decision by then.

Recruitee: Okay, sounds great--it was really interesting talking to you.

Recruiter: Bye--see you again.

Recruitee: Good day.

Script H

Recruiter: Jack Smith?

Recruitee: Yes, I am. Glad to meet you.

Recruiter: Have a seat. Care for some coffee?

Recruitee: No thanks. Maybe later.

Recruiter: Jack, I've just been looking through your folder and I see that you're a psych major at McMaster. You know, I've a daughter that goes there, too. She's, I think, probably a couple of years younger than you, so you may not know her. Her name's Ann.

Recruitee: Ann Jones? Mmmm, no. I don't think I do, though maybe I've heard the name before.

Recruiter: Well, Jack, why don't we talk a little bit about your interests, background, qualifications, and then I'll try to tell you just a little bit more about what we have to offer you here at GCI. Okay?

Recruitee: Sure, that sounds fine.

Recruiter: Do you have any particular job in mind?

Recruitee: Well, not really, no. Something in personnel, I imagine, with my background in psychology.

Recruiter: Tell me a little bit about some of the things you've done in the past that you think are important.

Recruitee: Well, as far as work goes, not much I guess. I spent a few summers pumping gas at my dad's station, and, well, last summer I spent eight hours a day packing and sorting nuts and bolts. That's not really too exciting. . .

Recruiter: Yeah, I guess I can see your point. What about your college experiences? What have they been like? Have you specialized in any one area of psychology?

Recruitee: No. The curriculum's been pretty general. Overall, I've studied a little bit of everything--cognitive psychology, motivation, conflict, individual differences, industrial, statistics, measurement, and so forth. So if you're asking me if I think I'm an "expert" in any one field, I guess I'd have to say no. But I think my college education has really broadened me, and that the general knowledge that I've gained has given me a pretty decent liberal arts background.

Recruiter: Mmm-hmm. How about outside activities? Have you taken part in any of those?

Recruitee: Well, let's see. . . yeah, I've been active in Spanish Club. In fact, for the past three years, I've lived in Spanish House. That's the kind of place they don't even let you THINK English. Uh, a couple of years ago I got interested in photography, too, and I've submitted quite a bit of my work to our college newspaper. . .

Recruiter: Well, that sounds interesting. Jack, let me take a few minutes now and tell you a little bit about the opportunities here at GCI. How does that sound? Good. Tell me, have you had a chance to read the literature that we've sent to you?

Recruitee: Yes, I did.

Recruiter: Do you have any questions about it?

Recruitee: No, not really.

Recruiter: Well, as you can see from taking a look at that, GCI is a very progressive company--we think tops in its field. We also have an excellent employee benefit program--hospitalization, pension, and so forth.

Recruitee: Mmm-hmm. I can see that.

Recruiter: Fine. Why don't I tell you now about some of the jobs that we have available that might interest you?

Recruitee: Okay.

Recruiter: Well, right now we have a couple of openings for personnel specialists.

Recruitee: Mmm-hmm. And just what kinds of things would I be doing in these jobs?

Recruiter: Well, Jack, these two jobs will be broken up to a certain extent according to the interests and abilities of whichever two people we decide to hire to fill them. I guess what I'm trying to say is that you probably wouldn't find all of your job duties to your liking, but we would try to take into account your background and training as much as possible in defining your job responsibilities. Well, tell you what, why don't I give you an example? Some of the things that you might do come under the heading of "labor-management relations." Or, from time to time, you might help conduct morale and attitude surveys among our employees.

Recruitee: I see.

Recruiter: Another possibility would be in the area of testing. We're currently involved in really rather large-scale test validation project to determine whether the tests that we use to help make selection and promotion decisions actually discriminate against minority groups, or for that matter, whether they are really good indicators of what kind of job performance ANY individual is likely to show once they get on the job.

Recruitee: Hmm . . . that sounds something like I could get interested in. But still, I think I'd like to get more into a management position of some sort eventually. How would I get the general background and training that I'd need to get into a position like a personnel manager, let's say?

Recruiter: Good point, Jack. We would probably start you out in a personnel specialist position and after three months or so you could expect to be considered for a 12-month management training program. In this, you might be working closely with an assistant personnel manager here, or with the personnel manager at one of our smaller plants, say at Whitesville. I'm not sure about all the specifics, but I can find out and let you know for sure. By the way, you wouldn't be opposed to such a move, would you?

Recruitee: Well, that one kind of sounds like it's out in the boondocks. But, I guess, no. I wouldn't really be too opposed, I don't have a family or anything to hold me down here. But tell me, Mr. Jones, what kind of starting salary could I expect?

Recruiter: Well, I'd say for someone like you, with your educational experience and background but really very little in the way of practical work experience, it would be somewhere in the neighborhood of $8,400.

Recruitee: Mmm-hmm.

Recruiter: Now, as a starting salary, that's not too bad. And the chances for advancement are really good for people who can make the grade.

Recruitee: Well, how fast do you think I could advance?

Recruiter: That will depend on you. But I would say that in not much more than a year, you could advance from a personnel specialist position say, to a supervisory level position in a special area within personnel--say, heading up our testing program. In the event that you'd be selected for our 12-month management training program, after that time, why you could probably reasonably expect to head up the personnel department of one of our smaller plants. I wouldn't want to make any promises about what you'll be doing a year from now, though.

Recruitee: Certainly, I can understand that.

Recruiter: Well, I think I've covered everything that I wanted this afternoon, Jack. As for the job, I can't really give you any kind of definite answer today. But I promise that I'll let you know within a couple of weeks, Well, Jack, I've really enjoyed this chance to talk with you today.

Recruitee: I'm glad you had time, too, Mr. Jones. And I wish I'd had more time to ask a few questions. But, I'll look forward to hearing from you.

Recruiter: Bye, now.

Recruitee: Good day.

Script I

Baxter: Come in. You're Whipker, aren't you?

Whipker: Yeah.

Baxter: Thanks for coming. Go ahead and have a chair.

Whipker: Thanks.

Baxter: I've been looking over some of these personnel folders, and I think there are some things that we should be talking about.

Whipker: What's this going to be--some sort of inquisition or something?

Baxter: No--no--no! Why would you think that? I've just got a new job here, and I've been meeting with all my people to try to get to know them a little better. I just want to get going on the right foot. I've been trying to learn about what some of your problems and the way you're approaching things in the department are, and how they work out and I need to talk about some of my problems and see how we can work everything through as a team.

Whipker: Yeah--so what do you want from me? I mean you already know damned well what my biggest problem is.

Baxter: Well . . . yeah, you're having troubles with Valva. But that can't be insurmountable. We ought to be able to work something out on that score . . . Look, I'd like to get to know you a little better, Marshall. Talk about yourself.

Whipker: What the hell do you want to know? I mean, I think everybody knows I pull my weight around here. I like my job, but there's just no way of getting ahead--and then there's this

Valva who's always dragging his butt, I can't get work out the way I should. You better do something about that bastard.

Baxter: You sure are hot under the collar about that, aren't you? I can understand the situation and how you feel. You're a damned good technical man, and you set pretty high standards. And I guess part of the problem with Valva is because I didn't get the word on that Tech Services cutback to you. I'm sorry about that, but let's not get hung up with that thing forever. Look, I want to get this straightened out so that your hands aren't tied because of other problems with other departments.

Whipker: Yeah--that sounds just fine, but it's just not that easy.

Baxter: Still needs to be solved. Look, I'll talk to Valva and explain to him that it was all a part of this misunderstanding. I'll tell him that we're sorry about what happened--especially that I didn't get the word to you about the cutback in Tech Services. Then I can tell him that we ought to try to work together a little better. And I think I can convince him that he should cooperate with us better.

Whipker: I guess it's worth a try, but I wouldn't give great odds on it--but I'll go along with it if you say so. . . But that doesn't solve anything about getting ahead around here. What are you going to do about that? I mean how come you got that job when I was obviously in line for it? That's what I don't understand.

Baxter: . . . Well--look, I want you to know, Marshall, that I'm entirely behind you. You definitely deserve to move up in this company. Quite frankly, I don't know all the ins and outs of why I'm in the job and you're not, but since I am in this job I'm going to do what I can to see to it that the next promotion comes your way. Now, I can't do that all alone. You've got to give me a hand in this.

Whipker: What do you mean?

Baxter: Well--you know you're a top-notch technical man, and got a lot of technical stuff that goes into an R&D record such as you've got. Now, being a manager involves technical knowledge too. It isn't all just straightforward. I know personally that I got some of the technical things about management when I took some night school courses in the local Community College back in Fairbanks. Now I guess that's about what I really mean when I'm saying that you gotta give me a hand in this. Maybe take a few courses. Read a few books on management, and get some of these technical details so that you're ready when the right spot comes along. That's all I'm asking.

Whipker: Well--I guess that sounds okay. . .

Baxter: Well, I got an idea what a good start might be--there's a Dale Carnegie course coming up, and I'd like you to give it a try. Now, they don't have all the answers, but they do

a fairly good job of getting into some of the simpler things. Now I took it myself about 10 years ago and I thought it was okay. If you're willing to give it a try and attend their sessions, we could get together every week or so and chat about what they're doing in the sessions and what you think of it, and how they might be tying with the job here at GCI. And that way I could give you a few pointers on what I think about managing, too. What do you think about that? Do you want to give it a shot?

Whipker: I suppose so. I don't have much to lose.

Baxter: Well, that'd be just great. I'll send your name in and then they'll be getting in touch with you. Well why don't we get together in another couple weeks. By that time I'll have talked to Valva and kind of touched base on how things are going in that situation. Then you'll have been to the first Dale Carnegie session, and we can sort of talk about how that thing looks. How's that sound to you?

Whipker: Well--it's okay to give it a try, but they sure as hell better not try to make me into any four-flusher!

Baxter: Well, you know that can't happen to you, Marshall. You're too solid a citizen for that. Look, I'll be seeing you in a couple weeks and in the meantime I'll sign you up for the Dale Carnegie course. And I'll

look into the promotion situation for you. Now--I'm not promising anything on the promotion, but if we can find a job that seems right then at least we'll have something which you can be aiming for. . .

Whipker: Well, we haven't talked about several things that I wanted to bring up, but I guess this is okay for a start.

Baxter: Okay.

Whipker: Good-bye.

Baxter: I'll be seeing you.

Script J

Baxter: Good afternoon. I'm Lee Baxter. Marshall Whipker, I believe. Did I have that right? Please have a chair. I'm glad we have finally managed to get together, Marshall, to talk about any difficulties you might be experiencing. Specifically, Marshall, I'd like to discuss any personal problems that you might be having, but feel free to talk about any other problems you might be having as well.

Whipker: Well, you could start by getting rid of that jackass Valva.

Baxter: Well, I don't think that firing Valva is the best solution to the problem and frankly, I was hoping for some good insights by you into the problem--some more helpful suggestions.

Whipker: What's that supposed to mean. I mean, I'm not the source of the problem; he is. I'm not the one that's stalling around on the new PC boards or behind schedule on the control package wiring; he is. If you could just get some work out of him, there wouldn't be any problem.

Baxter: I'm trying to improve the work flow, Marshall, but it's important to understand that barging into a guy's department and telling him off publicly is not the way to solve the problem. It's just not the way to do it. Now, in reviewing your record at GCI, it's clear that you have great technical knowledge and expertise and you've consistently met or exceeded production goals. I just thought you might have some good ideas on how to work this thing out.

Whipker: Well, for one thing, he never has materials on hand and he's constantly held up by shortages. I might get something out of his shop if he could get his orders out earlier.

Baxter: Umm-hmm . . . that's the kind of solid, substantial suggestion we need, Marshall. Any others?

Whipker: Well, I guess he could sure improve his machinery layout so his men wouldn't have to run all over the damn shop to put together one part. But before I solve all your problems, I I just want to say that a lot of good my technical expertise and past record have done me. I mean, any time an opportunity for promotion comes up, they bring in some tin-horn dude like you with no experience. And then you have the nerve to come in and ask me to solve all your problems.

Script K

Baxter: Come on in, Marshall, and have a seat.

Whipker: Ah, thank you.

Baxter: I've been looking forward to talking with you and I'm sorry we haven't had a chance to talk earlier.

Whipker: Uh-hum.

Baxter: I'd like to cover three major areas with you today, Marshall. The first area pertains to the Technical Services situation and your relationship with Valva.

Whipker: Uh-hum.

Baxter: The second area pertains to your relationship with your subordinates, and the third, I'd like to talk with you about your career goals and what you want to do at GCI. First of all, let's talk about the Technical Services situation and Valva situation. As you see things right now, Marshall, what kind of cooperation are you getting with Technical Services?

Whipker: Well, as far as I'm concerned, those guys over there are a bunch of idiots.

Baxter: What makes you feel that way, Marshall?

Whipker: I feel that way because Valva is a complete dunderhead. He doesn't know what the hell he's doing.

Baxter: Exactly what is it about Valva that causes you to feel that he doesn't know what he's doing?

Whipker: He isn't able to give me any help on my contracts.

Baxter: Have you outlined specifically what it is you need from Valva?

Whipker: I've tried that with him, but he just doesn't know what I'm talking about.

Baxter: Well, my suggestion to you, Marshall, is that you put down on paper exactly what it is you need from Valva and then you and I can go over it. If it looks reasonable, I want you to approach Valva and see if he will be able to meet your deadlines. Does that sound reasonable?

Whipker: I think the whole thing is hopeless, but if you want me to, I guess I'll try it one more time.

Baxter: Before we move away from the Technical Services area, I'd like to ask you what happened when you and Valva had the rather heated exchange recently.

Whipker: Nothing really happened, except I called him a jackass and stormed out of the area.

Baxter: Well, I think you can see, Marshall, that that kind of situation can create a lot of friction in the organization and it might get in the way from us getting our job done. In the future, if you have any criticisms to make of Valva, I'd like for you to do it in the privacy of his office. Do you think you can handle the situation in that manner?

Whipker: Screw it. Valva isn't worth my time.

Baxter: Well, when you put your objectives down in writing and tell Valva exactly what you need, then you can start worrying

about whether it's worth your time or not. In the meantime, I don't want to have any more situations like we've had in the past and I would like for you to bring any potential problems with Valva to my attention before they get out of hand. Is that clear?

Whipker: Yeah.

Baxter: The next area I'd like to cover is your relationships with your subordinates. How are you getting along with them right now?

Whipker: Okay.

Baxter: What does okay mean?

Whipker: They do their jobs, they stay out of trouble, and they don't catch any flak from me.

Baxter: Is that what supervising is all about?

Whipker: What else is there? I make a profit, don't I?

Baxter: Let's take some specifics. How are you and Ted Ecklund getting along right now?

Whipker: Not bad.

Baxter: Do you think Ecklund feels free to bring his problems to you?

Whipker: Why wouldn't he?

Baxter: He's a pretty young guy and he may need direction, and I don't know if you're giving him the kind of direction and the kind of help that he might need.

Whipker: As far as I know he hasn't had any complaints.

Baxter: I'm not too sure about that, but I'd like for you to give this some thought. Specifically, I would like for you to sit down with Ecklund and have a man-to-man talk with him. I want you to talk to Ecklund about whether he's receiving the necessary supervision and help from you and I'd like for you to report back to me on the results of that conversation in one week.

Whipker: Before we move on to any more of your ridiculous agenda items, I'd like to know why you think you're such a hot-shot. I've been here for all these years and instead of getting the job, they give it to some "outsider" like you.

Baxter: Why do you feel you should have gotten the promotion instead of me?

Whipker: Because I'm a better engineer than you are.

Baxter: Regardless of how you feel, Marshall, I got the job and you didn't. Now I understand how you feel about it and I understand why you're upset, but it wasn't my decision and there's really nothing we can do about it now except look to the future and try to determine what would be best for the two of us and our relationship.

Whipker: Oh, what a crock!

Baxter: Let's talk about your goals now, Marshall. What would you like to be doing that you're not doing right now?

Whipker: I'd like to have a big pay increase and a nice job like yours.

Baxter: Does that mean that you want to move into higher managerial ranks?

Whipker: What does it sound like?

Baxter: Well, how high do you want to go?

Whipker: As high as I can get.

Baxter: Can you be more specific?

Whipker: I want to be vice president of engineering.

Baxter: What qualifications do you feel you have that would enable you to perform well in that job?

Whipker: I'm a damn good engineer.

Baxter: Is that all it takes?

Whipker: What else is there?

Baxter: What about managing people and working with people so that you are more of a manager than just a technical contributor?

Whipker: What about it?

Baxter: I'd like to know how you really feel about managing others, Marshall. Is it possible that you would like to remain an individual contributor rather than moving into a management and administrative role?

Whipker: You can't make any money that way.

Baxter: Well, maybe you can't make as much money as you would if you were vice president, but I think you're a very valuable man--I think you're the kind of person that GCI should keep. I'd like to have you give some thought to what you want to do with your future and I'd like to ask your cooperation. You have done an outstanding job on all of your projects, and you meet your deadlines, and you always make a sizeable profit. You're too valuable of a person for GCI to lose and I'd be glad to help you in any way I can. If you have any questions about developing your management skills further, my door is always open. How are you feeling about things right now?

Whipker: I don't know.

Baxter: Well, maybe we both need some time to think about these things. I'd like to close the interview by suggesting that we meet one week from today and find out how you made out with Ecklund. I'd also like to talk to you about what your plans are for using the Technical Services people. After we go over the plan, we can think things through about the Valva situation and make sure there's a smooth relationship. I'd like for both of us to approach Valva within the next two weeks and just make sure that he understands what our needs are. Does that sound reasonable to you?

Whipker: Well, I guess that sounds pretty good.

Baxter: Okay, Marshall. Well, thanks for stopping by today, and I'll be talking to you next week about some of these things.

Whipker: Right--bye.

Script L

Baxter: Come in. Marshall Whipker, right?

Whipker: Right.

Baxter: I'm Baxter. Have a seat.

Whipker: Thank you.

Baxter: Well, is everything going okay?

Whipker: Yeah, I guess so.

Baxter: Good. Ah, well, Marshall, do you have any idea why I've asked you to come in here today?

Whipker: No, I don't . . . why don't you tell me?

Baxter: A lot of people have been coming to me with complaints about your behavior on the job.

Whipker: My "behavior" on the job is just fine . . . Ah, maybe you're referring to that little run-in with Valva? That idiot.

Baxter: He's not an idiot and what do you have to say about that confrontation that you had?

Whipker: What about it?

Baxter: That's what I want you to tell me.

Whipker: All that happened is I had a little argument with Valva about his work on my projects. Is that why you called me in here?

Baxter: Well, Valva didn't fill me in on all the details, but he did say that you started ranting and raving at him in front of his men when he told you about the cut in Tech Services hours. He said that apparently you hadn't gotten the word from Pean about it and you really lost control. That kind of an outburst is something we do just fine without here at GCI.

Whipker: No, I didn't get the memo. Why do you think I was so pissed off when Valva had to tell me about it?

Baxter: Well, I don't know, but Valva was pretty pissed off, too, about the way you blew up at him, and he wanted me to talk to you about it. You know, that memo came right from Pean's office. Now, if you didn't get it, that's too bad, but that's sure as hell no excuse for the way you treated Valva. It's not his fault that you didn't get the memo.

Whipker: Okay, okay, so maybe it wasn't his fault, but can you tell me, Baxter, how in hell am I supposed to meet my deadlines around here now that they've cut the hours on me? Especially when I've got to depend on Valva and those other jackasses down in Tech Services?

Baxter: Well, I think that's something you'd better talk to Valva about. Pean had his reasons for sending out the memo, and there's nothing we can do about that now. I think you'd better talk it over with Valva and try to come to some kind of an agreement about priorities. If you have deadlines to meet, I'm sure he'll understand and try to find a way to fit it into his schedule. Okay?

Whipker: Fat chance! Listen, even before the cut in overtime hours, I couldn't get any work out of him and the rest of those SOBs down there are just as bad. When I go down there and I ask them for a little help, half the time they're standing around twiddling their thumbs and telling nursery rhymes to one another. And then they say they're too busy when I ask them for a favor. The way things are now, well I'll be lucky to make any of my deadlines. Okay, listen can't you talk to Pean and ask him to change his mind about those overtime hours?

Baxter: I already told you, Whipker, I can't do anything about that now. Now, instead of feeling sorry for yourself, you're just going to have to find some way of getting what you want from Valva.

Whipker: Okay, and how the hell am I supposed to do that?

Baxter: Well, from what I've heard, this isn't the first time you've blown your stack around here, now. You're just going to have to cool it a little bit when you're dealing with Valva and the other people. You may think you've got problems--okay, maybe you do--but things aren't always so easy for them either.

Whipker: That's for damn sure I've got my problems. Getting any cooperation from anyone around here is worse than pulling teeth.

Baxter: Well, there must be a good reason why you're having so much trouble. You know, Whipker, I just can't emphasize enough to you the importance of treating everybody with respect. You can't just expect cooperation, you've got to earn it. Now we're all in this together. It's really not important what your personal feelings are for Valva, or anyone else for that matter. The important thing is to at least treat them as human beings and try to work together as a team. Now, don't you agree?

Whipker: I suppose so . . .

Baxter: Fine, I know you two will work things out somehow. Other than that, how are things going. You haven't had any other problems?

Whipker: Things are okay, I guess, Baxter. . .well, there is one thing that's been eating at me.

Baxter: Yea, what's that?

Whipker: Okay, I've been here at GCI for a long time and doing one hell of a good job as an engineer and always bringing in profits for the company on all my projects. Okay, so what do they do? Instead of putting someone on the job who really knows what he's doing, they bring someone in who doesn't know a ferit from a flatiron like you!

Baxter: What? You think you should have gotten this job instead of me?

Whipker: You're damn right I'm saying it.

Baxter: What in the hell makes you think you're better qualified for it than I am?

Whipker: Well, for one thing, I'm a damn good engineer. And people know who's boss with me. I tell them what I expect from them--I expect results--and I get it. Just look at your files--it's all in there.

Baxter: This is all well and good, Whipker, but the decision was made and the fact is you <u>didn't</u> get the job. Now I guess there's not much that can be done about that now, is there?

Baxter: Well, anyway, it sounds like you're doing okay on your job right now. All the reports I've gotten on your work seem satisfactory. Besides, what makes you think you would want to get into management if you had the chance?

Whipker: Why not? I'm not getting any place where I am right now. Besides, there's good money in management. And, from what I've seen, you don't have to work very hard to get it, either.

Baxter: Oh, is that what you think? Well, I don't know what you think being a manager is all about, but let me tell you, it's not all fun and games. If you expect to make it as a manager, you're going to have to find some better ways of dealing with people.

Whipker: Such as?

Baxter: We've covered all that already. Like you know, you've got to be more patient and considerate with Valva and the other people around here. I'll leave it up to you how you want to handle it. If you really want to change badly enough you can do it if you put your mind to it.

Whipker: Can you be a little bit more specific? I mean, all that human relations crap is a little bit abstract, don't you think? I mean, can't you come up with any real, concrete ideas about how I can get a better job?

Baxter: Well, I'll give it some thought.

Whipker: Right.

Baxter: Well, I'm kind of busy right now, Whipker, but it's been nice talking with you. I always like to keep up on what my people are doing. Now you keep in mind some of the things we've talked about this afternoon. Hang in there, and let me know what you decide to do.

Whipker: Sure thing.

Baxter: Good-bye, Marshall.

Whipker: Good-bye.

Script X

Baxter: You must be Marshall Whipker.

Whipker: Yes.

Baxter: I'm Dick Baxter. Grab a chair.

Whipker: Thank you.

Baxter: I called you in to find out what's going on in that department of yours.

Whipker: What do you mean?

Baxter: Well, I've been reviewing production records, and they indicate your department is . . . is doing pretty well, but that you've been having some problems with Valva.

Whipker: What do you mean, problem?

Baxter: Well, I understand that you swore at him the other day.

Whipker: Valva is a dunderhead. He is incompetent. He doesn't know what the hell he is doing.

Baxter: Well, I've been reviewing your . . . your personnel file, Whipker. I notice that . . . that you've worked for several companies in the past. Why did you leave Lyon's Podium?

Whipker: The supervisors there were incompetent.

Baxter: You left IBM because of too much busy work and Seal Electronic because they have no advancement potential?

Whipker: Right.

Baxter: Do you see a pattern there?

Whipker: What do you mean?

Baxter: Well . . . I've also been looking at . . . at Thompson's appraisal of you.

Whipker: . . . what appraisal?

Baxter: Well, the one Thompson . . . you can't have that--that's confidential company records--the one that he . . . he did on you on the 3rd of May. Let me . . . let me read some of his comments to you. Under "motivating others", "Marshall does not have good rapport with the engineers that report to him, nor is he friendly with other persons at his own level of authority." He further says that you're defensive when criticized and intolerant of others who appear less motivated and less committed to their job. Thompson does give you high marks on your technical expertise. He says, for example, that you're highly motivated, always current and up to date, that you always do your job well, and that your technical judgments are excellent. How do you feel about that, Marshall?

Whipker: Well, I agree with some parts and disagree with others.

Baxter: What parts do you disagree with?

Whipker: I agree with my technical competence. I work hard at that.

Baxter: Well, how about the rest? Thompson feels that . . . that you're weak in human relations.

Whipker: What do you mean, human relations? Look at my production records. If I had had human relations problems, do you

think my department would produce the way it does? I've got the best department in the whole plant and my records show that. You come in here and start throwing your weight around--I should have had that job of yours and I should have been sitting in that chair of yours right now.

Baxter: Whipker, I don't like your attitude. That's probably why you didn't get the job, running around and blowing up at people--Valva, Ecklund, and now me.

Whipker: What about Ecklund?

Baxter: Well, there's a story here that says that you blew up at him.

Whipker: When was that?

Baxter: 1967.

Whipker: Oh my God, two years ago, and . . . and you're . . . you're talking to me about that now?

Baxter: It's the same problem, Whipker. You're going to have to straighten up and fly right around here.

Whipker: Ecklund is a good man, but needs to be developed. I'm trying to make him more resourceful by encouraging . . . encouraging him to do things by himself and . . . and not depending so much on others.

Baxter: Are you having trouble at home, Marshall?

Whipker: None of your business.

Baxter: It is if it affects your work. Thompson felt that your

family situation might be unstable. Is that true?

Whipker: I said that's none of your business. What I do on my own time is of no concern to this company.

Baxter: Look, I didn't have anything to do with getting this job. Management selected me to do the job, and I'm going to do it. As far as I can see, you are a good man at getting the work out, but . . . but you need some development. Why don't you go down to Personnel and find out what courses are available? Try to find something in the people relationship area.

Whipker: What kind of people relationship?

Baxter: Well, something on . . . on how to work better with people.

Whipker: Do you think I would be able to meet the United Fund goal if I didn't get along with people?

Baxter: I saw that, Whipker. How did you do that?

Whipker: I divided up the goal by departments and I told everyone what their fair share was.

Baxter: I see. Now, getting back to this Valva business. I don't want that situation to get any worse. Stop bad-mouthing and . . . and try to work with him. Valva has his problems, too, and we should try to be more tolerant of each other.

Whipker: You don't know Valva. He's just incompetent.

Baxter: I'll have to find that out for myself, Marshall. In the meantime, you are gonna have to work more effectively with him. I saw also, Whipker, where you were thinking about another job.

Whipker: What do you mean?

Baxter: I heard a rumor that . . . that you might leave.

Whipker: That's none of your business. . . What did you call me in for anyway. I don't think that we've solved any of our problems as far as I can see.

Baxter: Well, I wanted to get to know you a little better. I hope now that we understand each other, Whipker. I want you to know that . . . that I have an open-door policy and if you have any problems you can always feel free to come in and talk . . . talk to me about what's on your mind, okay?

Whipker: Well, I don't see what that's going to accomplish.

Baxter: Well, let's try it and see. Thanks for coming in, Whipker. Let's not make it the last time.

Script N

Baxter: Oh, hello, come on in. You must be Marshall Whipker.

Whipker: Right.

Baxter: I'm Dick Baxter. Very nice--very nice to meet you. . . Go ahead and have a seat.

Whipker: Thank you.

Baxter: Well, you know, being new to this job, I haven't really gotten much of a chance to know my people yet. That's why I'm really glad that we have this opportunity to visit together today. And I'd like to ask you how are things going on the job? Anything special you'd like to talk about today?

Whipker: I don't know. Well, anyway, you're the one that called me in here. I assumed you were planning on doing most of the talking. That's the way these things usually go.

Baxter: Oh, not necessarily. Surely you must have a few things to get off your chest.

Whipker: Well, I guess maybe I do.

Baxter: What kinds of things would those be?

Whipker: Well, for one--Valva, that jackass down in Tech Services.

Baxter: Oh, yeah, that's right. I heard you have been having some problems with him. Why don't you tell me about it?

Whipker: Well, he's got those . . . those, uh, guys of his down there screwing around on some mickey mouse project printed circuit boards. And in the meantime, I've got a lot of important work to do and, ah, I can't get it out of 'em because of him and those other jerks.

Baxter: Have you tried talking things out with him? It could be a misunderstanding.

Whipker: What's the use? I mean I can't get any help from him when I need it. Like this morning, okay, I go down there and--get a load of this!--he's sitting around playing poker with those guys he's got working for him . . . well, if you can call it working. Ah, and then he gives me some crap about him not able to get out, ah, this work for me because his boys are . . . are too "busy" on some other project. Well, you know that's--that's just a bunch of crap.

Baxter: Well, I don't know Valva personally, but from what I've heard, he seems to be an all-right guy to work with. At least I haven't heard any complaints from anyone. Look, I'm sure it's just a misunderstanding between the two of you and it will work out in time. . . . Well, by the way, I've . . . I've been hearing, uh, from various people about the excellent job you did last year on the United Fund campaign.

Whipker: Oh yea, really?

Baxter: Right, right. Mm-hm . . . in fact, if you'd like to, I'd really appreciate your taking on the job again this year. Uh--I'm sure you can handle it based on last year's fine performance.

Whipker: Well, okay, why not? I'll do it.

Baxter: Good, I'll talk to Pean, then, and make the arrangements. Let's see, ah, where were we? Oh, right--your problem with Valva. Well, besides that, has anything else been bugging you lately about the job?

Whipker: Ah, yeah . . . you!

Baxter: Me?! Well, you, are certainly not wasting any time getting to the point! What is it about me that's bugging you?

Whipker: Well, ah, for one thing, it kinda pisses me off that I'm not sitting there behind that desk now instead of you.

Baxter: Tell me why you say that.

Whipker: Well, I think I should have had this job instead of you. Everyone knows I'm a hell of a lot more qualified for it. <u>You</u> probably know that!

Baxter: Uh . . . well, how so?

Whipker: Well, I've been around GCI for a long time now--a lot longer than <u>you</u>, I might add. And I've been doing a damn good job. I know how to handle people and they know that I expect results from them. They know what they have to

do--and they do it. And I don't put up with any of this screwing around that goes on in other departments around here. If you've looked at my . . . my personnel file, you can see that I've never had a bad performance review. I've always met my project deadlines on time and I've made money for the company. And nobody has ever given me any shit about my work, see.

Baxter: Well, yes, I can see that . . . It looks like your work has been first-rate all the way.

Whipker: Okay, then, what's the problem? I mean--why in the hell do they pass over me in favor of some hot shot like you when it comes around to handing out promotions. I don't see it.

Baxter: Well, I guess they had their reasons. With Thompson gone, I guess they needed to find a replacement for him as soon as possible and uh--GCI has been relying very heavily on your technical expertise--as they have always, of course--and you've been involved recently in several important projects. Plus the fact that I have had a lot of managerial experience already on my other job. So I guess they opted for someone who could step into Thompson's job right away and more or less pick it up where he left off.

Whipker: Okay, okay, but I would like to get into management. I mean I'm not getting anywhere in engineering.

Baxter: Oh?

Whipker: And uh, besides, that uh, management's where the money is. I mean, it's sure as hell's not in engineering.

Baxter: Okay, well, Marshall, I suggest that you hang in there for awhile longer on your job before making any decision one way or the other. Ah, you've been doing such fine work for us at GCI and we rely so much on your technical competence. Still, if you decide at some point that you want to get into management, feel free to come in and talk with me about it. You know my door's always open. In the meantime, you might want to do some reading on your own, to get a better feel for what a manager's job is all about. In fact, uh, I may be able to give you some suggestions along that line. Does that sound okay?

Whipker: Yeah, that sounds good to me, but that doesn't help me right now. I mean I still don't know what to do to . . . to get into management . . . and I still don't know what to do about that jackass Valva.

Baxter: Well, I suggest you take your time. I know you'll make the right decision about management and how to improve yourself. As for Valva--please don't worry about it. Things like that have a way of working out. Listen, I'm really glad--very glad--we had a chance to get acquainted today. Ah, I do have to go to a meeting in five minutes. And I've enjoyed chatting very much with you though, today, and I hope we can make plans to get together again soon.

Whipker: Yeah, I . . . I hope so. I have some things that I'd like to talk over with you too.

Baxter: Well, we'll definitely have to do that.

Whipker: Yeah.

Baxter: Good-bye for now. Very nice talking with you.

Whipker: Good-bye.

Baxter: Good luck with the United Fund!

Whipker: Yeah, thanks very much.

Script O

Baxter: Come in. Hello, Marshall. I'm Dick Baxter.

Whipker: Hi.

Baxter: Have a seat and make yourself comfortable.

Whipker: Thank you.

Baxter: Well, now tell me, how's it going for you, Marsh?

Whipker: Well, so-so.

Baxter: Is everything all right with Anne and the kids?

Whipker: Yes, things are basically okay.

Baxter: Let's see--I see here that you took primarily math, science, and engineering courses in school and that you were able to get grades in the A range. Gee, I have always found those technical and math courses difficult myself and I have to admire somebody who's diligent enough to stick it out and do well in courses like that. In fact, I started out in college with a major in chemical engineering, but toward the middle of the sophomore year, I had to switch over to business administration, partly because I was tired of spending all those hours with a slide rule, and I wanted to work more with people. And also, Marsh, between you and me, I was having a hard time with the math and all the technical stuff that's involved in engineering. So I guess I'm really glad to have somebody as technically competent as you working for me. And I'll be relying on you a lot to

hold up the technical end of the shop. Ah, looks like you enjoyed your math and science courses a lot more than the humanities.

Whipker: Well, the engineering courses made a lot of sense to me, but those damn English and history courses . . . Jeez, you know, I could just care less about that . . . about Faulkner's death imagery or those battles in the War of 1812. You know--that stuff is a lot of crap as far as I'm concerned.

Baxter: Yeah, I can see where a lot of the so-called liberal arts courses they're pushing these days probably is more geared toward giving the profs something to do in the lecture halls than to getting people a set of skills they can put to use in the real world.

Whipker: I think you're right.

Baxter: Ah, I see it says here that you've been with GCI for nine years now, is that right?

Whipker: Yeah.

Baxter: Do you like working here?

Whipker: Yeah, it's all right--I guess.

Baxter: I've heard rumors, Marsh, that you're thinking about a job with CDC.

Whipker: Who did you hear that from?

Baxter: Oh, just through the grapevine, you know . . .

Whipker: That's what's wrong with this place--it seems like whenever you tell somebody something in confidence, the word spreads like wild-fire. But, for really important information, you're lucky to find out what's happened two years or two months or whatever after it happens!

Baxter: What do you mean?

Whipker: You know very well what I mean. I mean, for instance, the memo about reduction in Tech Services hours. Why wasn't I informed about it? How come I had to get the word from that fool Valva instead of from you?

Baxter: Didn't you get a copy of the memo from Pean on this?

Whipker: No, I didn't get the memo from Pean on this.

Baxter: Well, I guess that's my fault. Looks like you're pretty upset about this, and I can't say that I blame you. I'll try to tighten up communications around here.

Whipker: Okay. And another thing--when is somebody going to do something about that son-of-a-bitch Valva?

Baxter: Oh, that's right, you had a run-in with Valva. What was it about?

Whipker: If you read your in-basket memos, you'll know that L Company sprung some last minute design changes on the F-1040 Ferits we're making for them. So this puts us

a little behind schedule on that contract, so I thought I'd get some overtime out of Valva's Tech Services people so, you know, to get us back on target. So, anyway, when I asked Valva about it, he just shook his head and mumbled something about his being restricted to printed circuit boards and not being able to give me the development help I need.

Baxter: According to Valva, you were pretty abusive to him. He says that you hollered and stomped around and insulted him and his subordinates.

Whipker: So what if I did. That dunderhead deserved it. Dammit, I'm sick and tired of putting up with the incompetence and hand-holding that goes on around here. Okay, take Valva. Nobody does any work in his shop. All they do is drink coffee, and read magazines, and play with that secretary, Miss Buxomberry, or whatever her name is. Whoever promoted Valva into that job must have been blind. And the promotion policy around here! Um. . . I don't know how it works, but it sure isn't giving the guys the promotion who are doing the work to get ahead. Dammit, you know, I've been busting my buns for nine years, and I've got the best profit margins in the company--so what happens when my boss Thompson dies? They fly some Flash Gordon up from California in here who's not even an engineer!

Baxter: Um--looks like you've been fuming about this for some time now. Gee, I'm not really sure why you haven't been promoted, but I suspect it might have something to do with your temper. You know, according to Valva, you really blew up when you saw him, and from your reactions right here, I'd say you probably could learn to control your temper more and maybe learn better how to get along with people. You know as well as I do that we just can't run an organization if people are running around blowing their stacks all the time. Maybe you and I could sit down some time and try to work out ways to help you get along with others better. This thing with Valva is really too bad. I'm sure you can find a way to--oh--approach him and sit down and work something out that would help the two of you get along and work smoothly together without coming to blows each time you see each other.

Whipker: Okay, maybe I can work on that. Is there anything else?

Baxter: Ah, no, I guess not. Let me just add, Marsh, that all in all you've been doing fairly well here at GCI and it would be a shame to lose you to CDC. Let's sit down and talk about how we can work together, you and I, to get you to the point where you'll be even more effective as a supervisor. Okay?

Whipker: Sure.

Baxter: Well, thanks for coming in, Marsh. I'll be talking to you later.

Whipker: Okay.

Script P

Baxter: Come on in. Why don't you sit here in this chair? Well, Marshall, since I've only been here a short time, I thought it would be a good idea to call people in and get to know them a little better. I'm calling everyone in to find out how their work is going and if there are any problems caused in the transition period while I'm learning the new job. How are things going for you?

Whipker: Just like they always do.

Baxter: Well, I've had some communications from other people in the company that indicate to me that there are some problems.

Whipker: Well, it's nice you're getting communications, because I'm certainly not getting any. How do you expect me to run my department if I'm not even notified about cutbacks in overtime?

Baxter: It's very unfortunate that my office slipped up on notifying you of that, Marshall, and I hope we can work together to improve our communication system, but it still seems to me that you've overreacted to the problem. He says . . . somewhere, let's see . . . that you "stomped around in his department and literally hollered and swore at him in front of his people."

Whipker: Valva is a complete idiot, and that's the only way I can get any action out of him. You can see how he handles things--he complains to the "big boss" rather than working things out himself. I think I'll start writing some memos on him--maybe that's the only way I'll get anything done around here.

Baxter: Well, I don't think that that would be a very good idea. Why don't you see if you can get along with him a little better?

Whipker: How do you get along with an idiot?

Baxter: Would you be able to run your department if Valva decided not to work with you?

Whipker: No, I guess not.

Baxter: Well, then, it seems to me you can hardly expect Valva to run his business if you decide not to work with him. Marshall, we're running a business here and your personal feelings about

someone have no place in this business. I've read your personnel file in preparation for this interview, just like I'm reading everyone's before they come in, and it sort of implies to me that you frequently let personal feelings about someone get in the way of your work. Do you think that's true?

Whipker: Well, that's a nice thing Thompson said about me--where does it say that? Let me see.

Baxter: I'm sorry, Marshall, but personnel files are confidential. It wouldn't be fair to Thompson to let you read something he thinks he wrote confidentially. However, I am sure you are aware of the contents of your last performance review, since he stated that he had talked it over with you.

Whipker: Well, he told me that I did a good job working on the United Fund.

Baxter: Well, that's true--he also said you did an adequate job elsewhere, but you have a problem working with people.

Whipker: Well, I don't know what you would call problems with people . . . My department is consistently on schedule, and we have the most profitable divisions in GCI--if that's having problems with people where you come from, well, I guess I do then.

Baxter: You are doing a pretty good job, Marshall, but you can probably do a little bit better. There's always room for improvement.

Whipker: Well, maybe <u>you</u> could help me by giving me a raise. At least that would help make up for the fact that I'm not going anyplace around here.

Baxter: Well, I'm not going to promise you a raise at this time, since we review everyone's salaries at the same time.

Whipker: I wanted to be promoted earlier, but uh . . . you got the job. You know, it's really a laugh that you're sitting there asking me if I want a promotion. In the last several years, it's been, "Marshall, you're the best engineer we've got," and "Marshall, it's really wonderful you're working so hard for the company,"

but somehow old Marshall gets forgotten when it comes time to hand out the promotions.

Baxter: Well, maybe there was a reason I got the job and you didn't. Maybe it had something to with your dealing with people?

Whipker: Well, I don't know--but it certainly doesn't seem worth staying around here to have it happen again, though.

Baxter: Maybe I can help you do something about that. I'd like you to take the Dale Carnegie course we're offering next month, and see if that isn't interesting to you.

Whipker: That's what I really need at this point--how to win friends and influence people. I'm an engineer, not a backslapper.

Baxter: Nevertheless, though, it does appear as if you're being held back in this area. I agree with you that you're an engineer, but an engineer has to work with people too. I wanted to run my department smoothly, and as far as I can tell, you seem to be good in many areas, and could use some development though in handling people.

Whipker: Well, what's in it for me? I mean, I've taken these courses before, and all I get are promises. Maybe I have to threaten to leave to get any action. You don't expect me to stay around here with no thanks, do you?

Baxter: Well, there's more to working than just money, Marshall, and I seem to remember from your personnel file that you moved from jobs quite often.

Whipker: Well, it's just that it's the same old story each time--promises, but no payoffs. As far as I can see, there's no place for me at GCI right now.

Baxter: Oh, I disagree, Whipker. GCI considers you to be a good engineer, and I'm sure we'd like to keep you in the company.

Whipker: Well, if you need me so much, why not give me a raise?

Baxter: No, as I said, you'll be reviewed along with everyone else. However, some effort on your part now will pay off later. I don't feel we've covered all the ground that I wanted to today. I'd like to see you again next week--how about Thursday about 2 o'clock.

Whipker: Yeah.

Baxter: At that time, we can set up the Dale Carnegie course, and we can chat about some of the things we didn't cover this interview. How does that sound?

Whipker: Okay, I guess.

Baxter: Okay, good--I'll see you next Thursday at two.

APPENDIX 3

List of Variables for the Minnesota Person Perception Battery

1. Eval. Exper. Experience in rating others' job performance.

2. Young Broth./Sist. Number of younger brothers and/or sisters.

3. Old Broth./Sist. Number of older brothers and/or sisters.

4. Group Leader. As high school student, frequency of leadership in group of friends.

5. HS GPA. High school GPA.

6. Age. Age in years.

7. Friends H.S. Number of friends in high school.

8. Self Percep. Org. Self-perceived organization when working on a job.

9. Task Involv. Involvement in jobs or tasks.

10. Detail Orient. Self-perceived detail orientation.

11. Notice Things. Frequency of noticing often overlooked things about people or situations.

12. Import. of Effort. Self-perceived importance of making all-out effort on a job.

13. Comfort. Being Org. Desire to be well organized for a task or working situation.

14. First Impress Right. Frequency of first impression about people being correct.

15. Like Arnd. People. Desire to be around other people.

16. Like Detail. Enjoyment of jobs requiring attention to detail.

17. Sleep. Amount of sleep required to feel good.

18. Care. Reason. Extent of using careful reasoning in making up one's mind.

19. Doesn't Bother. Degree to which not finishing a task bothers one.

20. Self Monitoring. Sensitive to one's expression and self-presentation in social situations; monitoring own behavior in the light of others' expectations, the social situations, etc., and using others' social cues as guidelines for managing own social behavior.

21. Halo 1. Mean intercorrelation among ratings on eight evaluative dimensions.

22. MPP. Mean rating of significant others who are friends or are admired.

23. LPP. Mean rating of significant others who are not liked.

24. D--Not Frnds. Mean difference between self-ratings and ratings of persons disliked.

25. D--Admired. Mean difference between self-ratings and ratings of admired or liked others.

26. Outgoing. Self-rating on outgoing-shy.

27. Adjusted. Self-rating on adjusted-maladjusted.

28. Decisive. Self-rating on decisive-indecisive.

29. Frndly. Self-rating on friendly-unfriendly.

30. Int. in Oth. Self-rating on interested in others-self-absorbed

31. Cheerfl. Self-rating on cheerful-ill humored.

32. Do. Self-rating on dominant-submissive.

33. Consid. Self-rating on considerate-inconsiderate.

34. CPI-TO. Tolerance: permissive, accepting, and nonjudgmental; informal, quick, clear thinking, and possessing broad and varied interests.

35. CPI-WB. Sense of well being: free from self-doubt and disillusionment; energetic, enterprising, productive, and active; valuing work and effort for its own sake.

36. CPI-SP. Social presence: poise, spontaneity and self-confidence in personal and social interaction.

37. Emp (Hogan Empath.). Empathy: tolerant, even-tempered, self-possessed, outgoing, patient, affiliative but socially ascendant.

38. Self-Comp. Self-perceived generalized competence; expectation of success in various undertakings.

39. Acc. Gen. Other. Accuracy in identifying opinions of the general public.

40. Hedge. Response tendency not to make polarized ratings. .

41. Verb. Reas. Wesman score (half the items); verbal reasoning and analytical thinking skill.

42. Stress. Tendency to worry, to become upset, to be nervous.

43. Authortn. Sympathetic to traditional values and standards of morality; endorse strict discipline and stern law enforcement.

44. Hd. Wk. Hard working, ambitious, and persistent.

45. Implsns. Impulsive; unrestrained, freewheeling, and inclined to act on the spur of the moment.

46. Absorbs. Enjoying and seeking imaginative experiences; likely to have artistic interests and become involved in the enjoyment of interesting sights, sounds, stories, etc.

47. Janz-1. High scorers are not interested in evaluating others, would not like evaluating others to be part of their job, get nervous when evaluating others for important decisions. Low scorers are interested and involved when evaluating others, find that they do not get nervous or upset and do not notice physiological indicators of nervousness when rating others.

48. Janz-2. High scorers see themselves as similar to most other people; they see other people as similar to each other, and they think that there are a lot of "good people" in the world.

49. Realistic Theme. "Realistic" interests: rugged, robust, practical, physically strong and aggressive in outlook; prefer to deal with things rather than people.

50. Investigative Theme. "Investigative" interests: task oriented, not particularly interested in working around other people; tendency to be creative and unconventional and to enjoy ambiguous challenges and abstract problems.

51. Artistic Theme. "Artistic" interests: tendency to enjoy expressing oneself in artistic media, to be sensitive and emotional, and to dislike highly structured tasks or problems.

52. Social Theme. "Social" interests: sociable, responsible, humanistic and concerned with others' welfare; prefer to solve problems by discussions with other people.

53. Enterprising Theme. "Enterprising" interests: energetic, enthusiastic, adventurous, and dominant; possessing good facility with words; tendency to be impatient with precise work.

54. Conventional Theme. "Conventional" interests: prefer highly ordered activities; fit well into a chain of command; well controlled, stable; most effective at well defined tasks.

55. Dom-Ach. Dominant; self-confident; achievement oriented.

56. Interpers. Interpersonally oriented; nurturant; affiliative; but controlled and reflective.

57. Change. Flexible; impulsive; spontaneous.

APPENDIX 4

Procedures for Selecting Subjects to View the Videotapes

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APPENDIX 4

Specifically, we wished to impose a criterion of maximum overall deviation from the mean profile on the 91 variables for the purpose of selecting the subgroup of 150 individuals. Clearly, we needed a summary index to identify the profiles with the greatest overall deviation. In addition, we thought it important to consider the intercorrelations among variables so that deviation from the group mean for several highly correlated variables would have less weight than the deviation of the same number of other, uncorrelated variables.

Thus, we transformed scores on the 91 variables into 91 independent x^2 distributed variables for each individual and summed them to a x^2 value with 91 degrees of freedom. Thus for each person, the x^2 value constituted a total deviation index that reflected the profile deviation in terms of derived orthogonal variables. To accomplish this, we used the following quadratic form for each individual's score:

$$\text{DEVIATION INDEX} = (x - M)' \hat{\Sigma}^{-1} (x - M)$$

where

$x_{(91\times1)}$ = Vector of 91 scores for the individual.

$M_{(91\times1)}$ = Vector of mean values based upon the entire sample of 258.

and

$\hat{\Sigma}_{(91\times91)}$ = Covariance matrix (of the distribution of x) which was, in this case, substituted by the sample covariance estimates.

This relatively crude procedure satisfied the criterion of maximum overall profile deviation. Although the "deviation index" included an unknown amount of error variance (compared to factor scores with residual factors discarded), we were unprepared at this point in the study to select a particular factor solution.

APPENDIX 5

Mathematical Definitions of Accuracy, Halo, Restriction Range and Leniency

MATHEMATICAL DEFINITIONS OF ACCURACY, HALO RESTRICTION OF RANGE, AND LENIENCY

In general, we are interested in analyzing performance ratings in a situation in which we have

I raters
J ratees (job performers)
K jobs, each with n_k dimensions.

The score $X_{ijk\ell}$, $1 \leq i \leq I$, $1 \leq j \leq J$, $1 \leq k \leq K$, and $1 \leq \ell \leq n_k$, is the rating of the ith rater on the jth ratee, for the ℓth dimension of the kth job.

DIFFERENTIAL ACCURACY

The Differential Accuracy (DA) score for the ith rater in the kth job is the mean of the accuracy scores for each dimension of the job.

$$DA_{ik} = \frac{1}{n_k} \sum_{\ell=1}^{n_k} Z_{ik\ell} \qquad (1)$$

where n_k = the number of dimensions for the kth job,

$Z_{ik\ell}$ = Fisher's z - transformation of the Pearson Product Moment (PPM) correlation coefficient between "true" scores and actual ratings by the rater on each dimension, i.e.

$$Z_{ik\ell} = \frac{1}{2} \ell n \left[\frac{1 + \gamma_{ik\ell}}{1 - \gamma_{ik\ell}} \right]$$

$\gamma_{ik\ell}$ = PPM correlation coefficient between J "true" scores and J ratings by the ith rater on the ℓth dimension of the kth job.

In the present study, there were J = 8 ratees for each job, so $\gamma_{ik\ell}$ is the PPM correlation coefficient between 8 ratings and 8 "true" scores.

HALO

Two Halo (H) scores were computed for each rater - one for each of the two jobs. In general, halo is defined as the mean across ratees, of standard deviations of job dimension scores with a ratee. The halo score for the ith rater on the kth job is

$$H_{ik} = \frac{1}{J} \sum_{j=1}^{J} s_{ijk} \qquad (2)$$

where $s_{ijk} = \left[\sum_{\ell=1}^{n_k} \frac{(X_{ijk\ell} - M_{ijk})^2}{n_k} \right]^{\frac{1}{2}}$

n_k is as above, $X_{ijk\ell}$ is as above.

M_{ijk} is the mean rating across job dimensions, for the ith rater, the jth ratee, and the kth job.

In the present study with J = 8 ratees in each job, halo scores are

$$H_{ik} = \frac{1}{8} \sum_{j=1}^{8} s_{ijk} \quad \text{for each job.}$$

RESTRICTION OF RANGE

Two Restriction of Range scores were computed for each rater--one for each job. Each score was the mean of standard deviations of ratings with a job dimension.

$$RR_{ik} = \frac{1}{n_k} \sum_{\ell=1}^{n_k} S_{ik\ell} \qquad (3)$$

$$\text{where } S_{ik\ell} = \left[\sum_{j=1}^{J} \frac{(X_{ijk\ell} - M_{i \cdot k\ell})^2}{J} \right]^{\frac{1}{2}}$$

n_k is defined above
J is defined above
$X_{ijk\ell}$ is defined above
$M_{i \cdot kl}$ is the mean across ratees of scores assigned by the ith rater on the ℓth dimension of the kth job.

LENIENCY/SEVERITY

Finally, two leniency/severity (LS) scores were computed for each rater, one for each job rated. In general, the score for the ith rater on the kth job is

$$LS_{ik} = \sum_{j=1}^{J} \frac{M_{ijk}}{J} \qquad (4)$$

All terms are as defined above.