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A COMPARISON OF THE EFFECTS OF AGE STEREOTYPES ON THE
PERFORMANCE EVALUATIONS OF TWO DIFFERENT JOBS

BY

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B.A., State University of New York at Buffalo, 1977

THESIS

Submitted in partial fulfillment of the requirements
for the degree of Master of Science: Psychology
in the Graduate Studies Program of
University of Central Florida

Orlando, Florida
1980

ACKNOWLEDGEMENTS

The author would like to thank Drs. Wayne Burroughs, Randy Fisher, and Ed Shirkey for counsel and assistance in the planning and writing of this paper.

Special thanks are also due to Lesley Harlow for her continuous support and assistance in the completion of this project.

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vii
INTRODUCTION	1
METHOD	20
Subjects	20
Instruments	20
Procedure	22
Analysis	22
RESULTS	27
Primary Analysis	27
Secondary Analysis	37
DISCUSSION	51
APPENDIX A JOB DESCRIPTIONS	59
APPENDIX B BEHAVIORAL DESCRIPTIONS	63
APPENDIX C RATING SCALES	94
APPENDIX D DEMOGRAPHIC DATA SHEET	105
REFERENCES	107

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	ANALYSIS OF VARIANCE FOR COOPERATION WITH CO-WORKERS FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET.	28
2	ANALYSIS OF VARIANCE FOR JOB KNOWLEDGE FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET	29
3	ANALYSIS OF VARIANCE FOR ORGANIZATION FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET	32
4	ANALYSIS OF VARIANCE FOR RESPONSIBILITY FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET	33
5	MEAN RATINGS FOR FIGURE 4	35
6	ANALYSIS OF VARIANCE FOR PROMOTION POTENTIAL FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET	36
7	ANALYSIS OF VARIANCE FOR SALARY FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET	38
8	ANALYSIS OF VARIANCE FOR EFFORT FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET	39
9	ANALYSIS OF VARIANCE FOR COOPERATION WITH CO-WORKERS FOR JOB TYPE, OCCUPATION, AND AGE OF TARGET.	40
10	ANALYSIS OF VARIANCE FOR JOB KNOWLEDGE FOR JOB TYPE, OCCUPATION, AND AGE OF TARGET.	41
11	ANALYSIS OF VARIANCE FOR ORGANIZATION FOR JOB TYPE, OCCUPATION, AND AGE OF TARGET.	45

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	Experimental Design for Primary Analysis.	24
2	Experimental Design for Secondary Analysis.	26
3	Mean Ratings on Job Knowledge for the Factors: Job Type and Age of Target. .	30
4	Mean Ratings on Responsibility for the Factors: Job Type, Age of Rater, and Age of Target (GDT=Graphics Design Technician; MGR=Manager; OT=Old Target; YT=Young Target).	34
5	Mean Ratings on Job Knowledge for the Factors: Job Type and Age of Target. .	43
6	Mean Ratings on Job Knowledge for the Factors: Occupation and Age of Target.	44

INTRODUCTION

A stereotype is an exaggerated belief associated with a category. Its function is to justify (rationalize) our conduct in relation to that category (Allport, 1954). According to Aronson (1976), stereotyping is the process of assigning identical characteristics to any person in a group, regardless of the actual variation among members of that group. Stereotyping is not necessarily an intentional act of abusiveness. It is basically used as a method to simplify the view of the world. To the extent that the stereotype is based on experience and is at all accurate, it is an adaptive, short-hand way of dealing with the world. But, if it blinds an individual to individual differences within a class of people, it is maladaptive and possibly dangerous. It seems that most stereotypes are not based upon valid experience but are based on hearsay or images developed by the mass media. They are almost always generated within our minds as a means for justifying prejudices and/or cruelty. The stereotypes arise both from cultural prescriptions of how people are supposed to behave and from observations of how they do behave (Aronson, 1966).

When an event occurs there is a tendency among

individuals to try to attribute a cause to that event. If a person performs an action, observers will make inferences about what caused that behavior. Attribution theory deals with the rules that most people use in attempting to infer the causes of the behavior which they observe. Incorporated in attribution theory is the notion of behavioral expectations. Once one attributes reasons to the behavior of a particular individual, he will usually expect that type of behavior to be repeated in the future. However, the variables of primacy and recency come into play in this situation. These variables determine exactly how the behavior is perceived, as they deal with the order of events. According to Jones and Goethals (1972), the information conveyed by the order of events itself is contingent on the context in which these events unfold and on the nature of the entity being considered as an attributional target.

In situations concerning attribution to ability, attention must be given to the fact that since ability is a relatively stable attribute, its manifestations may be somewhat more reliable and diagnostic than, for example, benevolence-malevolence (Jones & Goethals, 1972). Ability does not change in the manner that our moods do; only the conditions favorable to its manifestations change. Thus a sample of good performance indicates to the

observer that the individual "has it in him," even though this high quality performance may never be observed again. Once high ability is attributed, future declines in performance may be explained in terms of motivational change, distractions, etc., according to Jones and Goethals (1972). If an individual performs well after low ability has been attributed to him, dissonance causes us to reassess our estimation of his talents. It is also common to find excuses for this belated high quality performance and attribute it to luck, the help of others, or, perhaps, perseverance (Jones, Rock, Shaver, Goethals, & Ward, 1968). Because of the personality changes which occur with age, an older individual's high performance on a task may be attributed to luck, help of others, etc., and not to his ability per se, because of the stereotypical expectations we have of what people are like at different age levels (Aronson, 1958, 1960, 1964, 1966).

Stereotypes can come into play when dealing with the issue of old employees, in spite of Federal regulations stating the illegality of this practice. It is possible that the reason for the existence of age discrimination can be attributed to preconceived notions which employers have pertaining to the capabilities of older aged people. It seems that employers are reluctant to hire older workers because of (a) concern that there is a

significant physical decline which lowers older workers' productivity; (b) that they are more difficult to train; (c) that employers may suffer a penalty in terms of increased pension and insurance costs; and (d) that the older worker is not as adaptable and flexible (Sheblak, 1969).

Attitudes similar to those found by Sheblak in his survey of employers are common, regardless of how accurate they might be. A survey was conducted (Koenig & Gault, 1965) to determine whether chief executives from several organizations located in Sydney, Australia do have definite opinions concerning the employment and promotion of older executives, and the reasons for these opinions. The results indicated that half of the chief executives surveyed would not hire an executive beyond the age range of 40 to 45 while the other half chose the 50 to 55 year range as their cutoff for recruiting executives. The reasons provided for these limits were considerations of how many years a man could still devote to the company, doubts about the abilities of a man entering the labor market in his forties or fifties, the ease of training the younger man, and the greater adaptability of the younger man. The same trends were found for promotion policies as well.

In another survey of employers, Haefner (1977)

attempted to ascertain the impact of race, age, and competence of hypothetical disadvantaged job candidates on managerial evaluations. The survey indicated that the race of a potential employee was not of major influence in a hiring decision. The major factors affecting the selection decision were the age, sex, and competence of the job applicant. The employers would rather select a 25-year old worker than a 55-year old worker, a male rather than a female, and would recommend more strongly highly competent candidates than barely competent candidates. Additionally, if the choice to be made was between two highly competent employees, one being an older worker and the other being a younger worker, the younger worker would be preferred over the older worker. Results similar to these were found by Triandis (1963), who demonstrated that American personnel directors preferred not to hire 55-year old individuals at lower levels in the organization.

It is obvious that the older worker is not looked upon with a very positive attitude. Meltzer (1960) investigated the perceptual stereotypes of 300 male and female employees of all ages under the same management and with the same philosophy in three different regions of the United States: the Northeast, the Midwest and the Far West. These 300 people were of ages ranging from

less than 20 through more than 60. Meltzer concluded that there was a generally unfavorable attitude toward aging and age on the part of his sample, regardless of the variability of attitudes held by the subjects towards the younger years of a lifetime. However, Kirchner and Dunnette (1954) indicated that the relative age of a person interacts with the attitudes one has pertaining to age. It was noted that the relative age of a person in his work group may aid in determining the degree of his favorableness toward older employees. For example, a middle-aged person in a group of younger employees is apt to be more favorable in attitude toward older employees than a middle-aged person in a group of older employees. It seems, then, that the reaction of an individual toward older persons is contingent upon the age group in which the individual identifies himself.

Slater and Kingsley (1976) found similar results in their survey of employers' attitudes toward older managers. It was concluded that an employer's age was the best single predictor of the attitude measures in six of the 14 analyses. The employer's age and the attitude toward older managers in these six analyses were related in that younger employers endorsed more unfavorable attitudes than older employers. Slater and Kingsley explained these results by concluding that the attitudes of the

older employers were probably more accurate because of their tenure and less biased than the younger employers. Kirchner (1957) also found a relationship between age of respondent and attitudes toward the older worker. In his study, using a 24-item Likert scale for measuring attitudes toward older workers, he also discovered that the older the respondent, the more favorable the attitude toward the older worker.

These findings are contradictory to the findings of Tuckman and Lorge (1952). In their study, three different groups of old aged people were surveyed with the goal of learning about the attitudes of the aged toward the older worker. The results demonstrated that as individuals become less able to function, their ideas more closely resemble the typical erroneous beliefs regarding the aged. The subgroups of aged people who were institutionalized accepted these stereotypical attitudes more so than the two other noninstitutionalized subgroups. Tuckman and Lorge stated further that, according to the data, the more an individual agrees with the stereotypes of the older worker, the more these concepts are indicative of the beliefs he has of himself and of his adjustment. Additionally it was concluded that the nearer the respondent was in age to the age stated as being "old" for a worker, the more strongly the respondent subscribed

to the negative conceptions of old age.

The stereotypical attitudes commonly held toward older people could possibly contribute to perceptions of age discrimination. This was demonstrated in a survey conducted by Kasschau (1977), who attempted to compare the prevalence of age discrimination. From her sample of 1144 Black, Mexican-American, and White respondents of Los Angeles County, it appeared that these subjects perceived that both racial and age discrimination is experienced significantly less frequently by their friends than by the general public. Reports of discrimination against friends and acquaintances were significantly more common than reports of the respondents having personally experienced the discrimination. Another interesting finding from Kasschau's study was that experiences with age discrimination were not significantly less reported than race discrimination at any of the three levels of observation, i.e., personal experience, experience of friends and acquaintances, and generally in the United States, for any of the three ethnic groups.

Perceptions of age discrimination were also investigated by McAuley (1977) by means of a survey method. In his survey, McAuley interviewed a sample of persons aged 40 to 64 and concluded that perceived age discrimination is widespread, particularly among elderly people, people

in white-collar positions, people residing in larger cities, and people in retail-wholesale and professional categories. McAuley also ascertained that perceived age discrimination can cause reduced motivation to establish a new career or to seek new employment after layoff.

Thus, the question which results from the above studies is: How valid are the attitudes of employers regarding the abilities and desirability of the aged? In other words, do older employees perform at levels lower than their younger associates? According to the literature, there is not a definitive answer to this question, but it seems that age only affects performance for physical tasks.

Jamieson (1966) attempted to measure the effect of age on inspection performance in the telecommunications industry. He found that performance differences, where they existed, favored the older inspectors. However, Moore (1965) found the performance levels of 40- to 50-year old post office letter sorter trainees to be significantly lower than those of the younger trainees. Moore also noted that performance was especially poorer in the older group when the conflict between the information to and from vision and positional sources was maximal. When analyzing the errors, it seemed that the difficulties experienced by the older group were related to errors

which appeared to persist in an involuntary manner.

Contrary findings were found with regards to age differences in relation to efficiency (Smith, 1959). In the analysis of the exit records of a glass company, it was noted that older workers were discharged less often than the younger workers and were less likely to quit because of familial circumstances. However, older employees were more likely to quit for physical reasons. Older workers received basically as many above average ratings as younger workers in ability, attendance, and attitude, and were assessed as equally deserving of being rehired. Similar findings resulted for attendance records in an analysis of personnel records of 300 men over a ten-year period (Mare & Sergean, 1961). According to these records, high absence records were not age-related, as hypothesized, except for certified illnesses. In these instances, the aging effect was shown to be a relevant factor for explaining the increased absence rates. Lack of a relationship between age and attendance was also demonstrated by Howe (1964).

Smith (1959) also discovered that older employees tend to be somewhat slower and less able to learn than younger employees in another part of his investigation of skilled, unskilled, and clerical workers discussed above. However, he found that the older employees tend to be

steadier, more capable of working without supervision, and better in attendance than their younger colleagues. Meier and Kerr (1976) found similar results with regards to attendance and stability. Sheblak's (1969) findings concurred with those of Smith for stability and low need for supervision as well.

In the final portion of his study, Smith's findings inferred that older retail managers had higher levels of job knowledge, ability to handle problems, loyalty, extra effort, and acquaintance with objectives. It seemed that the older employees' greater overall worth was reflected by their more respected opinions and their excellent records. Even though their learning ability and promotability might be lower than those of younger employees, these traits seemed irrelevant to the older employee and inappropriate for dealing with his efficiency. All of these findings were similar to those of a related study conducted earlier by Smith (1952).

Favorable findings for older workers were also found by Howe (1964). Howe concluded from his study that age is not a reliable guide to the selection of employees. Additionally, he noted that workers in older age groups tend to be more consistent in their output rates, more accurate, and remain on the job longer than younger workers. He also stated that since older workers do not terminate

as readily as younger workers, organizations should not give preference to hiring younger employees with the assumption that their return per unit of cost will be greater because of the younger worker's longer potential work life.

A study conducted by Breen and Spaeth (1960) concerning age in relation to productivity showed no differences between either group of subjects. Male subjects from two groups, aged 40 to 45 and 60 to 65, were matched on the basis of sex, place of work, occupation, and depending on availability of data, by marital status, ethnic group, and education. As noted above, the older group produced as much and as consistently as did the younger group.

It appears that one area in which performance differences should be greatly influenced by age is that pertaining to tasks which are basically physical in nature. This was confirmed by Malhotra, Ramaswamy, Dua, and Sengupta (1966) in their study of physical work capacity with regards to age. Malhotra et al. tested 879 healthy soldiers and discovered that all of the physical functions tested began to show deterioration after 30 years of age. Additionally, they realized that the process was progressive after that point. However, Snook (1971) hypothesized that continuous work capacity does not decrease with increasing age. Snook engaged two groups of 14 healthy

male subjects, age 25 to 35 and age 45 to 60, in several manual handling tasks. The results supported the hypothesis. Perhaps Meier and Kerr's (1976) study can be used to clarify these two seemingly contradictory results. In their survey of the literature of middle-aged and older workers, they concluded that findings indicate that the physical demands of most jobs are well below the capacities of most normal aging workers. Therefore, it would appear that even if physical capacity does indeed decline with age, it does not decline to the point where most jobs would be impossible for older people to perform successfully.

Another element which can interact with age differences and their influence on productivity is experience. According to Schwab and Heneman (1977), the experience, and thus, the improved skills and knowledge which the older worker has may be sufficient to offset declines in productivity, which could possibly occur as a result of increasing age. Unfortunately, the results of their study indicated that the basically equivalent performance levels for older and younger workers could not be attributed to the generally greater experience the older subjects possessed. Similar findings were noted by Cobb (1967) with regards to the experience variable. In his study of the relationships between age, experience, and

job performance ratings of air traffic control specialists, Cobb found no significant effects for the interaction between age and length of experience. Further, he discovered a statistically negative relationship between age and experimentally derived job performance ratings, which could possibly be related to stereotypes. Cobb, Nelson, and Mathews (1973) found experience to correlate negligibly with rated performance on experimental job ratings for air traffic controllers. Szafran (1965) discovered that pilots over 40 have greater difficulty making quick decisions and receiving and retaining information in the laboratory than the younger pilots. However, some subjects were able to change strategies for detecting low intensity signals because of prolonged experience, causing the adverse effects of aging to be almost eliminated. Thus, the influence of experience on the relationship between age and performance cannot be measured exactly but it seems to have enough importance to deem it worthy of attention.

Another issue which causes employers' reluctance to hire older workers is the belief that they are involved in or are more susceptible to accidents on the job. This misconception is demonstrated in three separate studies. McFarland, Moseley, and Fisher (1954) collected data pertaining to accident frequencies and age characteristics of

truck drivers. They deduced that the older drivers, according to the data, are less likely to have accidents than the younger ones. Meier and Kerr (1976) found the same point to be true in their survey of the literature regarding middle-aged and older workers. In a study conducted by Griew (1958), a differentiation was made by occupation. It appeared that accident rates in some jobs increased with age to a greater degree than in other jobs. Additionally, these jobs with higher accident rates for the older employee tend to be jobs where a majority of the incumbents are young. It also seemed that discrepancies between observed and expected frequencies were maximal for the 45- to 52-year age group, not the older group, as hypothesized.

There is even more confusion as to whether the age of an employee influences the evaluation of his work by others. In a study by Rosen and Jerdee (1976a) subjects were instructed to compare a hypothetical 30-year old male with a 60-year old male employee on the dimensions of performance capacity, potential for development, stability, and interpersonal skills. The results indicated that the older employee was rated significantly lower in performance capacity and in developmental potential but significantly higher in stability. Additionally, there seemed to be an interaction between the ages of the participant and the

employee. For the performance capacity dimension, there was a significant interaction between age of subject and the difference between the ratings of the old and the young employee.

In another study, Rosen and Jerdee (1976b) used their in-basket design to measure the influence of age on perceptions dealing with resistance to change, employability, motivation, promotability, and trainability. Though several significant differences resulted, there was a problem with range restriction, as subjects were all in the 21- to 29-year old age group. This restricted the demonstration of the relationship between age of evaluator and age of evaluatee, which is an issue which must be considered (Kirchner & Dunnette, 1954; Rosen & Jerdee, 1976a; Slater & Kingsley, 1976). This, along with the fact that the situation was not a realistic one, leads to problems of external validity.

Schwab and Heneman (1978) attempted to conduct a study in which the impact of age on personnel decisions was reflected in more realistic situations with subjects who make actual decisions of this type in organizations. This was accomplished in a performance appraisal context. They hypothesized that the performance of an older employee would be underevaluated and that an interaction between age of employee and age of evaluator would occur

such that older (younger) evaluators would undervalue the younger (older) employee. Additionally, the study was developed to overcome the effects of experience on the relationship between age and performance by treating experience as a separate variable. According to another study by Schwab and Heneman (1977), if experience is not considered, obtained age effects may be attributed to both age and experiential stereotypes. However, experience was demonstrated to have little if any influence on performance evaluations; therefore, it was not investigated in this study.

The results of the study indicate that, contrary to the hypothesis, there were no significant main effects due to age. This was dissimilar to the findings of Rosen and Jerdee (1976b) but may be accounted for by differing methodologies. Additionally, the fact that extensive performance information was provided might have caused difficulties for the subjects to underevaluate the older employees. Schwab and Heneman also stated that the task chosen for evaluation (secretary) may not be as subject to age stereotyping as other jobs, such as managerial ones, where skill obsolescence may be a more common occurrence.

Contrary to the hypothesis, the significant findings for age of participant and age of target were such that older (younger) participants provided lower (higher)

evaluations of the older target. The opposite would have been expected if similarity in age causes more favorable ratings. Kirchner and Dunnette (1954), Rosen and Jerdee (1976b), and Slater and Kingsley (1976) found that older participants supplied higher evaluations to older ratees.

The results did parallel those of Tuckman and Lorge (1952). They stated that people themselves who experienced greater difficulty adjusting to old age viewed older people more negatively than those with less prevalent adjustment difficulties. This might be the reason for the observations in this study, if difficulty of old age adjustment is correlated positively to age.

Schwab and Heneman further claim that the results obtained for the younger subjects might be accounted for by their greater sensitivity to the possibility of age stereotypes, hence overcompensation, or to their attribution of positive work characteristics associated with age.

In view of the findings discussed above, this study was designed to investigate the following hypotheses:

1. The performance of an older employee will be evaluated at a significantly lower level than that of a younger employee for both graphics design technicians and managers across all raters.

2. The age of the employee and the age of the rater will interact significantly such that:

- (a) older raters will underrate younger employees, and
- (b) younger raters will underrate older employees.

3. Due to the greater chance of skill obsolescence for a managerial position than for a graphics design technician, the effect of age stereotyping will be significantly greater for managers than for graphics design technicians.

4. There will be significant differences between the ratings of the students and the ratings of the professionals such that students will underrate older employees.

METHOD

Subjects

Thirty-six undergraduate management students, who were present in an organizational theory class at the University of Central Florida when the experiment was administered, participated in the study. Additionally, 37 personnel specialists, who were members of the Florida College Placement Association, participated in this study.

Instruments

Participants were instructed to complete an appraisal exercise regarding the performance of four employees who were described as either graphics design technicians or managers of production. The appraisal exercise contained (a) a job description (see Appendix A); (b) descriptions of behaviors typical of performance for the employees, a completed appraisal form, age, and yearly salary (see Appendix B); (c) rating scales for the evaluation of the employees (see Appendix C); and (d) a demographic data sheet for the subjects to complete after appraising the employees (see Appendix D).

The behavioral descriptions for each employee were in the form of case studies emphasizing dimensions similar

to those identified by Borman (1974). These included cooperation with co-workers, job knowledge, organization, and responsibility. Varying levels of performance, in terms of effectiveness, were combined to create a high performing employee, a low performing employee, and two average performing employees. The four employees were presented in the following order: average, high, low average. The first three employees were not experimentally manipulated. They were included in the materials so as to inhibit subject knowledge of the manipulated variable. The age of the fourth employee (the target) was experimentally manipulated to form two distinct levels of age. The first three employees for both groups were 37, 45, and 53. The target employee was either 29 or 62; younger or older than the other three employees. This procedure was in accordance with the procedure developed by Schwab and Heneman (1978).

The dependent variables were the seven evaluations participants provided for the target employee. These consisted of the four dimensions discussed above along with promotion potential, salary, and effort. The dimension of salary was described in terms of whether or not a salary increase should be recommended. The dimension of effort was described in terms of identifying the degree of effort the employee must maintain to perform at the present

level of performance. Each of the dimensions used for evaluations appeared in the form of behavioral expectation scales (see Appendix C).

Procedure

All subjects, regardless of whether they were students or professionals, were randomly assigned to two groups. The first group received materials pertaining to the graphics design technicians while the second group received materials for managers of production. The subjects in the first group were randomly assigned into two other groups; the first group receiving the old target and the second group receiving the young target. The same procedure was used for the subjects assigned to the managers of production, thus resulting in one group receiving the old target and the other receiving the young target. This procedure of randomly distributing the student subjects and the professional subjects across four conditions yielded the following subject categories: graphics design technician-old target, graphics design technician-young target, manager of production-old target, manager of production-young target.

Analysis

Primary analysis. The median age for the entire sample was calculated in order to further categorize the

four groups of subjects. The age of the subjects was obtained from the demographic data sheet provided in the appraisal exercise. The median age for the sample was 31. Thus, subjects in each of the four groups were assigned into the old rater category if they were older than 31 or into the young rater category if they were younger than 31. The one professional subject in the sample who was 31 was eliminated from the analysis. Out of the 36 remaining subjects who were professionals, 30 were in the old rater category (above the median) and six were in the young rater category (below the median). Six students were in the old rater category (above the median) and 30 students were in the young rater category (below the median).

Seven $2 \times 2 \times 2$ ANOVA's (fixed effects model), one for each of the dimensions, were calculated to analyze the performance ratings provided by the subjects. The independent variables for these ANOVA's were job type, age of rater, and age of target. There were nine subjects per cell for these ANOVA's (see Figure 1).

Secondary analysis. - Because of the possibility that the independent variable of age of rater might have been confounded by the occupational differences of the subjects, i.e., students versus professionals, an additional $2 \times 2 \times 2$ ANOVA, fixed effects model, was calculated for each of the seven dimensions. The independent variables

Figure 1. Experimental Design for Primary Analysis

Graphics Design Technician				Manager of Production			
Old Target		Young Target		Old Target		Young Target	
Young Rater	Old Rater	Young Rater	Old Rater	Young Rater	Old Rater	Young Rater	Old Rater

for these seven ANOVA's were job type, occupation, and age of target. As in the primary analysis, there were nine subjects per cell for these ANOVA's (see Figure 2).

Figure 2. Experimental Design for Secondary Analysis

Graphics Design Technician				Manager of Production			
Old Target		Young Target		Old Target		Young Target	
Stu- dent	Pro- fes- sional	Stu- dent	Pro- fes- sional	Stu- dent	Pro- fes- sional	Stu- dent	Pro- fes- sional

RESULTS

The major concern of this study was to determine whether the performance evaluation ratings of an employee are influenced by the type of position held, the age of the employee, and the age of the rater. An additional concern of this study was to determine whether individuals employed in personnel related fields are less influenced by an employee's age than are students when evaluating job performance. Seven ANOVA's were conducted for the primary analysis, one for each of the performance questions. An additional seven ANOVA's were conducted for the secondary analysis, one for each of the performance questions.

Primary Analysis

Dependent measure 1: Cooperation with co-workers.

The ANOVA for this variable showed no significant results (see Table 1).

Dependent measure 2: Job knowledge. The ANOVA for this variable showed no significant main effects (Table 2). The ANOVA did demonstrate an interaction between job type and age of target, $p < .05$ (see Figure 3, Table 2). In this interaction, the old target was rated significantly higher when described as a graphics design technician than when described as a manager across all

TABLE 1

ANALYSIS OF VARIANCE FOR COOPERATION WITH CO-WORKERS
FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	5.556	3.107
Age of Rater (B)	1	0.056	0.031
Age of Target (C)	1	2.000	1.118
2-Way Interactions			
A X B	1	2.722	1.522
A X C	1	0.889	0.497
B X C	1	6.722	3.759
3-Way Interaction			
A X B X C	1	2.719	1.521
Error _w	64	1.788	

*p < .05

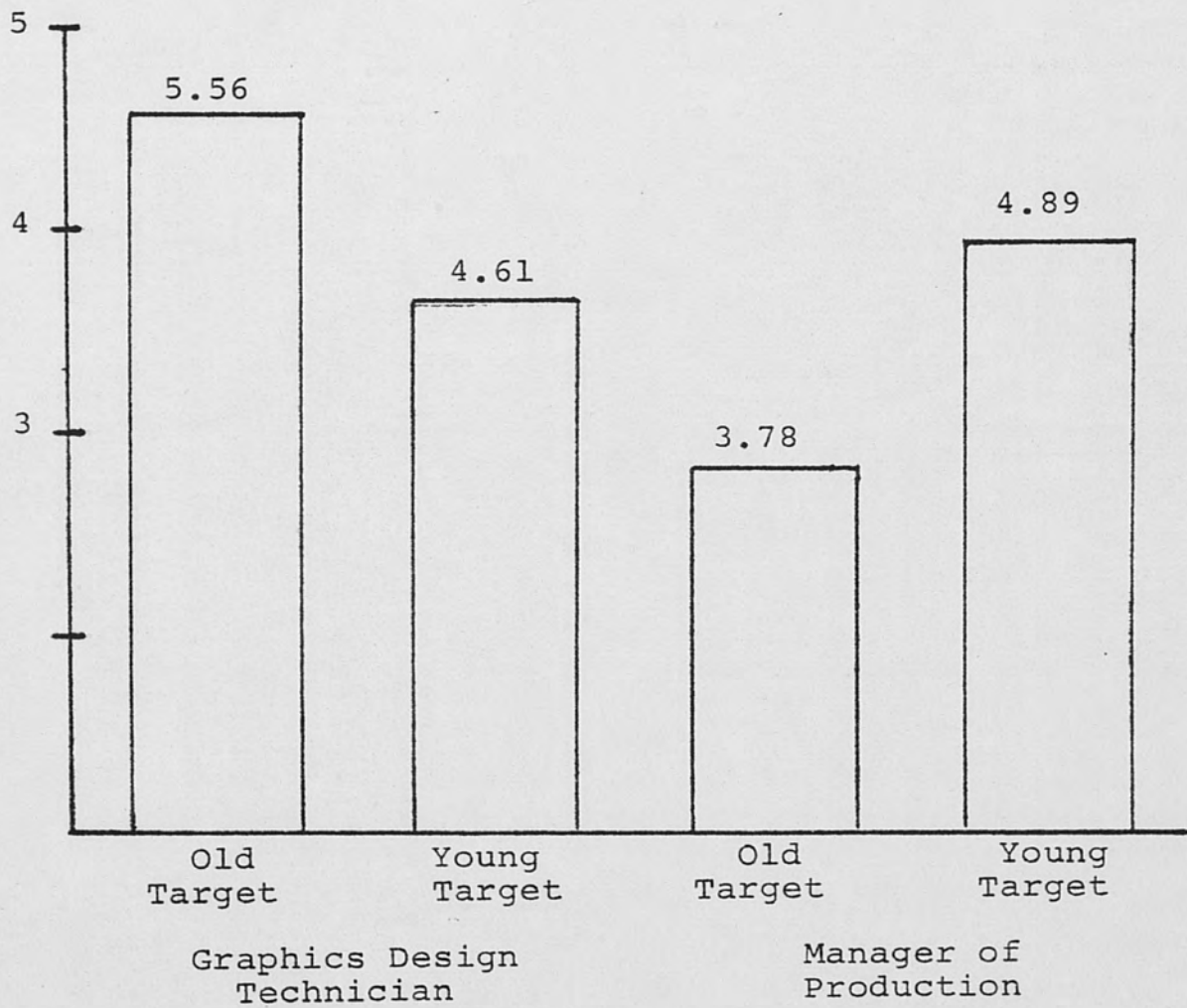
TABLE 2

ANALYSIS OF VARIANCE FOR JOB KNOWLEDGE FOR JOB TYPE,
AGE OF RATER, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	10.125	3.310
Age of Rater (B)	1	1.125	0.368
Age of Target (C)	1	0.125	0.041
2-Way Interactions			
A X B	1	2.347	0.767
A X C	1	19.014	6.216*
B X C	1	8.681	2.838
3-Way Interaction			
A X B X C	1	1.678	0.549
Error _w	64	3.059	

* $p < .05$

Figure 3. Mean Ratings on Job Knowledge for the Factors: Job Type and Age of Target*



*Note: n = 18; LSD = 1.124

raters, as expected. Additionally, this interaction demonstrated a strong relationship amongst the managerial targets as the young target was rated higher than the old target across all raters, as expected.

Dependent measure 3: Organization. The ANOVA for this variable showed no significant results (see Table 3).

Dependent measure 4: Responsibility. The ANOVA for this variable showed no significant main effects nor significant 2-way interactions (see Table 4). However, job type, age of rater, and age of target interacted significantly, $p < .05$ (see Figure 4, Table 4, Table 5).

In this interaction, the young raters rated the old target significantly higher when it was described as a graphics design technician than when it was described as a manager. Additionally, the old raters rated the young target significantly higher when it was described as a graphics design technician than when it was described as a manager.

Dependent measure 5: Promotion potential. The ANOVA for this variable demonstrated a significant main effect, $p < .05$, for age of target (see Table 6). In this main effect, the young target was rated significantly higher than the old target, across all raters and both job types, with means of 4.306 and 3.722 respectively.

Dependent measure 6: Salary. The ANOVA for this

TABLE 3

ANALYSIS OF VARIANCE FOR ORGANIZATION FOR JOB TYPE, AGE
OF RATER, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	1.389	0.563
Age of Rater (B)	1	0.056	0.023
Age of Target (C)	1	1.389	0.563
2-Way Interactions			
A X B	1	0.500	0.203
A X C	1	2.722	1.103
B X C	1	9.389	3.803
3-Way Interaction			
A X B X C	64	2.469	
Error _w			

*p < .05

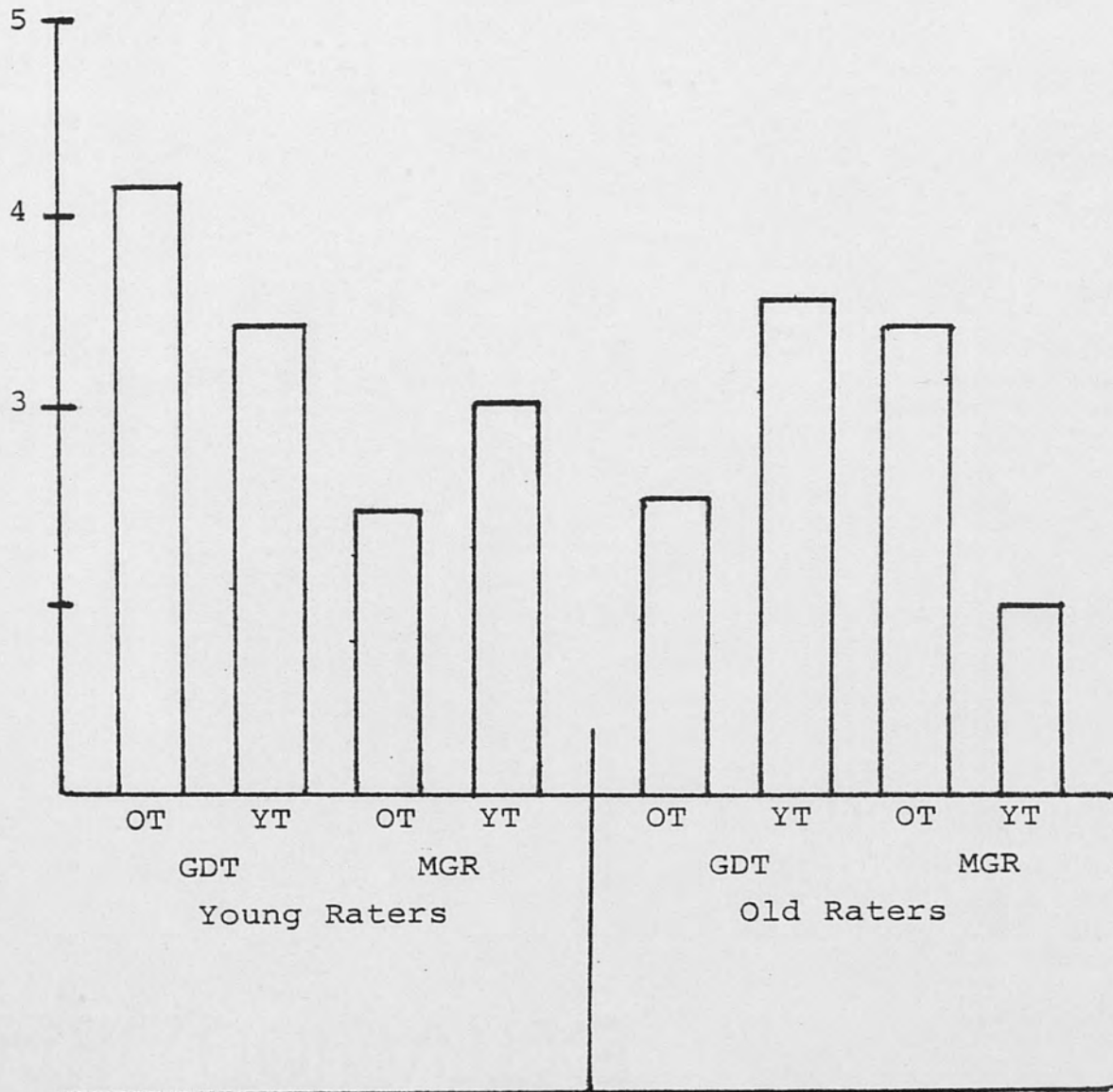
TABLE 4

ANALYSIS OF VARIANCE FOR RESPONSIBILITY FOR JOB TYPE,
AGE OF RATER, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	8.681	3.230
Age of Rater (B)	1	2.347	0.873
Age of Target (C)	1	0.347	0.129
2-Way Interactions			
A X B	1	2.347	0.873
A X C	1	1.681	0.625
B X C	1	0.125	0.047
3-Way Interaction			
A X B X C	1	15.123	5.627*
Error _w	64	2.688	

* $p < .05$

Figure 4. Mean Ratings on Responsibility for the Factors: Job Type, Age of Rater, and Age of Target (GDT=Graphics Design Technician, MGR=Manager; OT=Old Target; YT=Young Target)*



*Note: $n = 9$; $LSD = 1.546$

TABLE 5

MEAN RATINGS FOR FIGURE 4

	Young Raters	Old Raters
Graphics Design Technician		
Old Target	5.11	3.56
Young Target	4.44	4.56
Manager of Production		
Old Target	3.44	4.44
Young Target	4.00	3.00

TABLE 6

ANALYSIS OF VARIANCE FOR PROMOTION POTENTIAL FOR
JOB TYPE, AGE OF RATER, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	4.014	3.422
Age of Rater (B)	1	0.823	0.702
Age of Target (C)	1	5.014	4.275*
2-Way Interactions			
A X B	1	0.387	0.330
A X C	1	2.347	2.001
B X C	1	0.724	0.587
3-Way Interaction			
A X B X C	1	1.463	1.247
Error _w	64	1.173	

* $p < .05$

variable showed a significant main effect, $p < .01$, for age of target (see Table 7). In this main effect, the young target was rated significantly higher than the old target across all raters and both job types, with means of 4.444 and 3.750 respectively.

Dependent measure 7: Effort. The ANOVA for this variable showed a main effect for job type, $p < .05$ (see Table 8). The ratings for managers were significantly higher than those for graphics design technicians across all raters and targets, with means of 4.722 and 4.111 respectively. Thus both managerial targets were viewed as requiring more effort than the graphics design technician targets to perform at the described level of performance.

Secondary Analysis

Dependent measure 1: Cooperation with co-workers. Results for this variable were consistent with those found in the primary analysis in that no significant results occurred (see Table 9).

Dependent measure 2: Job knowledge. For this variable, a significant main effect was demonstrated for occupation (see Table 10). This main effect indicated that the ratings provided by students were significantly higher than those provided by professionals across all targets and both job types with means of 5.167 and 4.250

TABLE 7

ANALYSIS OF VARIANCE FOR SALARY FOR JOB TYPE, AGE OF RATER, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	3.125	2.822
Age of Rater (B)	1	0.471	0.425
Age of Target (C)	1	8.681	7.842**
2-Way Interactions			
A X B	1	2.861	2.584
A X C	1	0.014	0.013
B X C	1	3.493	3.155
3-Way Interaction			
A X B X C	1	2.107	1.903
Error _w	64	1.107	

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

TABLE 8

ANALYSIS OF VARIANCE FOR EFFORT FOR JOB TYPE,
AGE OF RATER, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	6.722	6.245*
Age of Rater (B)	1	0.500	0.465
Age of Target (C)	1	3.556	3.303
2-Way Interactions			
A X B	1	0.500	0.464
A X C	1	0.222	0.206
B X C	1	0.889	0.826
3-Way Interaction			
A X B X C	1	0.220	0.204
Error _w	64	1.076	

* $p < .05$

TABLE 9

ANALYSIS OF VARIANCE FOR COOPERATION WITH CO-WORKERS FOR
JOB TYPE, OCCUPATION, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	5.556	3.007
Age of Rater (B)	1	0.889	0.481
Age of Target (C)	1	2.000	1.083
2-Way Interactions			
A X B	1	2.000	1.083
A X C	1	0.889	0.481
B X C	1	2.000	1.083
3-Way Interaction			
A X B X C	1	3.553	1.923
Error _w	64	1.847	

*p < .05

TABLE 10

ANALYSIS OF VARIANCE FOR JOB KNOWLEDGE FOR JOB TYPE,
OCCUPATION, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	10.125	3.560
Age of Rater (B)	1	15.125	5.319*
Age of Target (C)	1	0.125	0.044
2-Way Interactions			
A X B	1	0.125	0.044
A X C	1	19.014	6.686*
B X C	1	11.681	4.107*
3-Way Interaction			
A X B X C	1	0.677	0.238
Error _w	64	2.844	

*p < .05

respectively, $p < .05$.

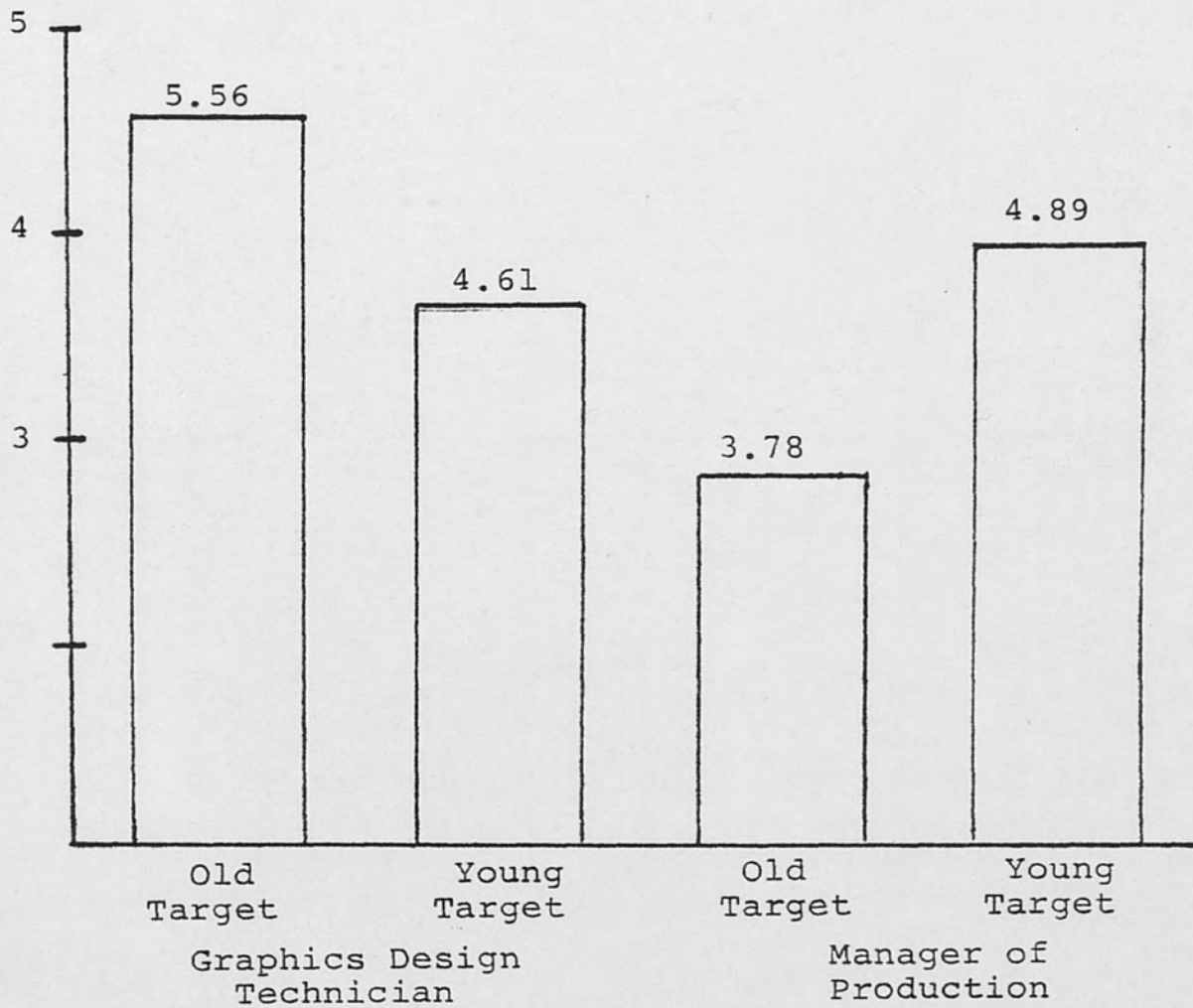
In accordance with the primary analysis, a significant interaction, $p < .05$, was demonstrated between job type and age of target (see Table 10, Figure 5). This interaction was consistent with the interaction demonstrated for this variable in the primary analysis as the old target was rated significantly higher when described as a graphics design technician than when described as a manager, across all raters. Additionally, the strong trend amongst the managerial targets noted in the primary analysis was demonstrated in this analysis as well.

A significant interaction also occurred for this variable between age of target and occupation, $p < .05$ (see Table 10). In this interaction, the students rated the young target significantly higher than did the professionals across both job types (see Figure 6).

Dependent measure 3: Organization. Results for this variable were consistent with those found in the primary analysis in that no significant results were demonstrated in the ANOVA (see Table 11).

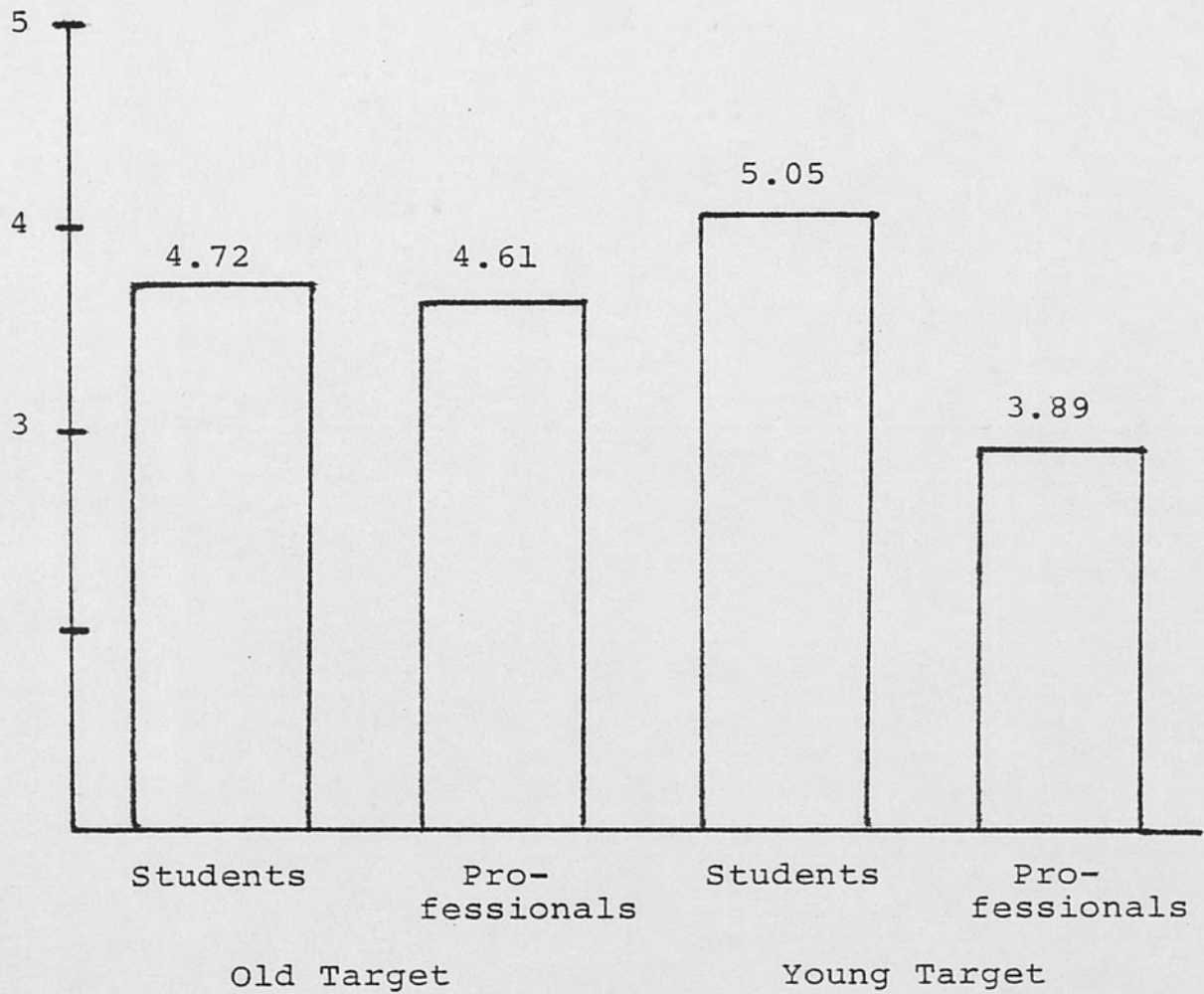
Dependent measure 4: Responsibility. The ANOVA for this variable showed no significant results (see Table 12). These findings were consistent with the results noted for this variable in the primary analysis except for the 3-way interaction. In the primary analysis, the

Figure 5. Mean Ratings on Job Knowledge for the Factors: Job Type and Age of Target*



*Note. $\underline{n} = 18$; $\underline{LSD} = 1.124$

Figure 6. Mean Ratings on Job Knowledge for the Factors: Occupation and Age of Target*



*Note. $n = 18$; LSD = 1.124

TABLE 11

ANALYSIS OF VARIANCE FOR ORGANIZATION FOR JOB TYPE,
OCCUPATION, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	1.389	0.533
Age of Rater (B)	1	2.722	1.044
Age of Target (C)	1	1.389	0.533
2-Way Interactions			
A X B	1	0.056	0.021
A X C	1	2.722	1.044
B X C	1	1.389	0.533
3-Way Interaction			
A X B X C	1	1.385	0.531
Error _w	64	2.608	

*p < .05

TABLE 12

ANALYSIS OF VARIANCE FOR RESPONSIBILITY FOR JOB TYPE,
OCCUPATION, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	8.681	3.125
Age of Rater (B)	1	4.014	1.445
Age of Target (C)	1	0.347	0.125
2-Way Interactions			
A X B	1	0.347	0.125
A X C	1	1.681	0.605
B X C	1	1.125	0.405
3-Way Interaction			
A X B X C	1	8.678	3.124
Error _w	64	2.778	

*p < .05

interaction between job type, age of rater, and age of target was significant, $p < .05$. However, the interaction between job type, occupation, and age of target was not significant in this analysis.

Dependent measure 5: Promotion potential. The ANOVA for this variable demonstrated a significant main effect for age of target (see Table 13). In this main effect, it was noted that the young targets were rated significantly higher than the old targets, across all raters and both job types, with means of 4.306 and 3.722 respectively. These findings were consistent with the results found in the primary analysis.

Dependent measure 6: Salary. As in the primary analysis, a significant main effect was demonstrated for age of target on this variable, $p < .01$ (see Table 14). In this main effect, the young target was rated significantly higher than the old target, across all raters and both job types, with means of 4.444 and 3.750 respectively. These findings were consistent with those indicated in the primary analysis.

Dependent measure 7: Effort. As in the primary analysis, a significant main effect was noted for job type, $p < .05$ (see Table 15). In this main effect, the ratings for managers were higher than those for graphics design technicians, across all raters and targets, with

TABLE 13

ANALYSIS OF VARIANCE FOR PROMOTION POTENTIAL FOR
JOB TYPE, OCCUPATION, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	4.014	3.514
Age of Rater (B)	1	0.681	0.596
Age of Target (C)	1	5.014	4.389*
2-Way Interactions			
A X B	1	0.014	0.012
A X C	1	2.347	2.055
B X C	1	0.681	0.596
3-Way Interaction			
A X B X C	1.	1.121	0.981
Error _w	64	1.142	

*p < .05

TABLE 14

ANALYSIS OF VARIANCE FOR SALARY FOR JOB TYPE,
OCCUPATION, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	3.125	3.273
Age of Rater (B)	1	0.014	0.015
Age of Target (C)	1	8.681	9.091**
2-Way Interactions			
A X B	1	1.681	1.760
A X C	1	0.014	0.015
B X C	1	0.014	0.015
3-Way Interaction			
A X B X C	1	1.677	1.757
Error _w	64	0.955	

*p < .05

**p < .01

TABLE 15

ANALYSIS OF VARIANCE FOR EFFORT FOR JOB TYPE,
OCCUPATION, AND AGE OF TARGET

Source of Variation	df	MS	F
Main Effects			
Job Type (A)	1	6.722	6.245*
Age of Rater (B)	1	0.889	0.826
Age of Target (C)	1	3.556	3.303
2-Way Interactions			
A X B	1	0.222	0.206
A X C	1	0.222	0.206
B X C	1	0.500	0.464
3-Way Interaction			
A X B X C	1	0.496	0.461
Error _w	64	1.076	

*p < .05

DISCUSSION

The first hypothesis investigated in this study was that the performance of an old employee will be evaluated at a significantly lower level than that of a younger employee for both job types, graphics design technician and manager of production. Basically, this hypothesis was not supported as significant findings resulted on only two of the seven rating dimensions. However, these significant findings occurred as hypothesized. The two dimensions demonstrating support for the hypothesis were salary and promotion potential, in both analyses.

These results supported the findings of Haefner (1977), Koenig and Gault (1965), Meltzer (1960), and Triandis (1963) who found that older individuals were evaluated lower than younger individuals. No significant differences were found in either of the analyses for the other dimensions.

Thus, the old employee was not viewed as less cooperative, less knowledgeable, less organized, or less responsible than the young employee across both job types. These results are similar to those reported by Schwab and Heneman (1978). Additionally, the old employee was not viewed as requiring more effort than the

young employee to perform at the described level of performance.

Significant differences found for salary and promotion potential may have resulted from several factors. It is possible that the subjects did not recommend a salary increase for the old employee because he was seen as an individual who was nearing the end of his career and whose salary accurately reflected his abilities. However, the young employee might have been viewed as deserving a raise because he was employed for a relatively shorter period of time and had accumulated the skills necessary for effective performance at a younger point in his career.

Additionally, the young employee might have possibly been viewed as being more promotable due to his age. The old employee's lower promotion potential ratings might be attributable to the hesitancy on the part of the raters to promote an individual who is likely to retire within a short time. Promoting this individual would result in organization incurred training expenses, which might prove worthless for an individual who is approaching retirement.

Interesting results were demonstrated for Hypothesis 2, which stated that the age of the evaluator will interact significantly with the age of the employee, as support

for this hypothesis was not demonstrated on any of the seven dimensions. These results are surprising in that the literature has demonstrated evidence that a relationship between age of rater and age of ratee exists (Kirchner & Dunnette, 1954; Rosen & Jerdee, 1976b; Slater & Kingsley, 1976; Tuckman & Lorge, 1952).

Possibly, the nature of the sample was the contributing factor to the disconfirmation of the hypothesis. Since both the student and professional segments of the sample are extremely familiar with fair personnel practices and the necessity of objectivity in performance appraisals, perhaps the age of the ratee did not influence the ratings assigned to the targets by the subjects. Additionally, the design of the experiment itself might have influenced the results which occurred for this hypothesis. Since the subjects were not given the opportunity to observe the job behaviors of the targets, it is possible that inaccurate ratings might have been provided even though the ratings might have been objectively based. Further research, with a less artificial design, is necessary in this area before definitive conclusions can be made.

Hypothesis 3, which stated that due to the greater chance of skill obsolescence for a managerial position than for a graphics design technician, the effect of age

stereotyping will be significantly greater for managers than for graphics design technicians, was basically not supported. However, significant results confirming the hypothesis did occur on the job knowledge dimension. On this dimension the old target was rated significantly higher when described as a graphics design technician than when described as a manager. Additionally, a strong relationship between the managerial targets occurred as the young target was rated higher than the old target, as hypothesized.

It appears, then, that an individual in a position which lends itself to skill obsolescence will, for the most part, not be assigned low performance evaluations if he/she is old. Possibly, the significant results which were noted on the job knowledge dimension were due to the nature of the skills necessary for both job types. The old manager might have been viewed as less knowledgeable because of the dynamic nature of managerial skills. Perhaps the skills stressed 30 or 40 years ago differ from those presently emphasized, thus skill obsolescence and low evaluations in job knowledge. However, the skills of the graphics design technician, which are considerably more static than managerial skills, might have contributed to the high evaluation of the old graphics design technician. The age of the old graphics design technician

seemed to work in his favor, as skills of this nature might be viewed as improving with age.

It must be kept in mind, however, that even though the old managerial target was rated lower than the old graphics design technician target, one cannot assume that old managers do not have sufficient knowledge of their jobs to perform effectively. Since the hypothesis was not supported on any of the other dimensions, it appears that the advanced age of an individual cannot be viewed as a factor which can hinder his performance.

Though support for this hypothesis did not result for the dimension of responsibility, the 3-way interaction in the primary analysis yielded interesting results. This interaction indicated that the old managerial target was rated significantly lower than the old graphics design technician target. However, this occurred only for the young raters. Consequently, these findings cannot be attributed to skill obsolescence per se, as they might have been confounded by the age of the rater. Further research is necessary in order to isolate these two factors.

Hypothesis 4, which stated that there will be significant differences between the ratings of the students and the professionals such that students will underrate older employees, was not supported on any of the dimensions.

It was somewhat surprising that support for this

hypothesis did not occur. Since most of the student segment and professional segment of the sample were in the young rater and old rater categories respectively, it seemed interesting that significant differences demonstrated on dimensions for the primary analysis did not occur for the secondary analysis. Possibly, significant differences did not occur because the students, all of whom were management majors, were as aware as the professionals regarding the need for objectivity in performance evaluations.

This investigation demonstrated some noteworthy results. However, these results might have been confounded by several factors, all of which warrant further investigation. The results might have been confounded by the character of the evaluation task. The task was somewhat artificial in that participants evaluated written descriptions about work behaviors; they did not directly observe these behaviors (Schwab & Heneman, 1978). Thus, the participants were more prone to the rating errors of leniency, halo, and central tendency. This is especially true for the student segment of the sample, who, unlike the professionals, have not yet been exposed to performance evaluation situations.

The results might also have been confounded by the job types chosen for the appraisal exercise. The

managerial target was somewhat similar to the positions held by some of the professional subjects. This factor might have influenced the ratings given by this group and, in turn, the results of the study. The student segment of the sample did not have this advantage.

Since none of the hypotheses was supported across all of the rating dimensions, it is difficult to state any global conclusions regarding the effects of job type, age of employee, and age of rater on performance evaluations. Further, results for the dimensions of cooperation with co-workers, organization, and effort did not show support for any of the hypotheses in either of the analyses. However, subjects viewed the managerial target as requiring more effort than the graphics design technician to perform at the described level of performance. These findings indicate that the type of job does influence performance ratings.

Further, a distinction must be made between the seven dimensions which the target employees were rated. The dimensions of cooperation with co-workers, job knowledge, organization, responsibility, and effort directly reflected the performance of the target employees. However, promotion potential and salary recommendation are not dimensions which reflect the skills and performance of an employee but are basically decisions made which are

contingent upon the performance of the employee. This distinction must be maintained when dealing with performance appraisal issues. Unfortunately, it is not in most organizations.

What is clear from this investigation is that age biases did not have as strong an impact as expected. However, it is evident that performance evaluations are influenced to a degree by the age of the rater, the age of the employee, the type of position held by the employee, and the decision being made. Future research in this area is necessary for more specific conclusions.

APPENDIX A
JOB DESCRIPTIONS

District Manager of Production-Position Description

Plans for projects by establishing short and long range goals as well as setting priorities.

Evaluates and monitors subordinates' performance levels.

Provides feedback to subordinates regarding their job performance.

Provides subordinates with task-relevant information.

Asks for information from subordinates, peers, and superiors.

Deals with complaints about subordinates in terms of lack of cooperation.

Communicates with superiors. This is usually in the form of status reports and follow-up as well as for project update.

Makes decisions regarding procedures and task delegation for all projects pertaining to production.

Sets standards and interprets procedures for others.

In charge of all production related matters for the entire district. The production manager acts in the capacity of overseer as he must ascertain whether or not all phases of production are completed as scheduled and that all relevant procedures are being adhered to.

Graphics Design Technician--Position Description

Designs and executes visual conceptions that relate to the request material through layout design, drawings, and letterings with and without mechanical aids.

Develops the art assignment in an organized, sequential method from resources of the artist's own knowledge and abilities.

Uses references to develop sketches from which finished artwork is executed.

Develops clear working plans and models for own reference or for other units to utilize.

Produces readable text information through printing and photography.

Knowledgeable in the presentation and preserving of art by mounting, matting, and lamination methods.

Confers with graphic coordinator in regard to assigned requests and during the production process.

Confers with clients concerning the factors of the job necessary for efficiency and effectiveness.

Works closely with graphic co-workers and administrative personnel with regard to requests and procedures.

Ascertains whether equipment is in proper working condition.

Keeps inventory of materials and lists them for order.

Logs out each job upon completion.

Computes costs and steps estimation for weekly and monthly reports.

APPENDIX B
BEHAVIORAL DESCRIPTIONS

NAME: Gary Randolph
POSITION: Graphics Design Technician
AGE: 37 SALARY: \$14,500/year
EDUCATION: B.A. Art (1965)
Stanford Univ.

Gary has been a graphics design technician for several years. His ability to artistically execute the ideas of both clients and supervisors is adequate. Occasionally, his graphic renderings tend to require some revisions.

On his most recent assignment, Gary devised and utilized layouts and rough sketches prior to designing the final product. His project was approved and satisfied the client. However, Gary realized that he neglected to consult all similar projects on file. Though his project was approved, it seemed that its quality could have been slightly better if these references were considered when Gary was developing his plans.

On another assignment, Gary was required by his supervisor to produce printed text information. Though Gary completed this project in accordance with the set deadline, it appeared that the difficulties he experienced could have been minimized if he had incorporated photographic techniques to a greater extent in his efforts. The presentation devices he used were effective, however.

A few weeks ago, Gary was in the process of

developing layouts for an assignment on a project for an outside client. Since the layouts were very intricate in nature, frequent consultation with both his supervisor and with the client was mandatory for favorable results. The final project was approved after three revisions were made. It seemed that Gary would not have been required to make these revisions if he had kept in closer contact with the client during the design process.

Pertaining to administrative duties, Gary is effective in indicating project completion dates in the department log. He usually completes budgetary forms and indicates to the necessary sources cost estimations for his projects. Gary tends to neglect maintenance of the department's supply inventory and occasionally fails to check equipment for malfunctions.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Gary RandolphPosition Graphics Design Technician

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>3</u>
JOB COMPETENCE	<u>4</u>
TASK INITIATIVE	<u>3</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>3</u>
RELIABILITY	<u>3</u>
QUALITY OF WORK	<u>4</u>
KNOWLEDGE	<u>4</u>
EMOTIONAL STABILITY	<u>4</u>
COOPERATION	<u>4</u>
PERSONALITY	<u>3</u>
OVERALL	<u>3.5</u>

Signature of Rater Robert Mason

NAME: Donald Simpson
POSITION: Graphics Design Technician
AGE: 45 SALARY: \$16,000/year
EDUCATION: B.A. Graphics Design (1958)
Univ. of Penn.

Donald is a very talented design technician. He is admired by his peers as well as by his supervisors. Whenever Donald is assigned a project, his diligent efforts usually lead to favorable results.

Two months ago, Donald was assigned a very important project by his supervisor. The project was of high priority and there was limited time to complete it. Through frequent consultation with the graphic coordinator and through the use of outside references, Donald completed the project as required. His design and execution of the material coincided precisely with the demands of the assignment.

More recently, Donald completed sketches for a client that were received very favorably. For the design of these sketches, Donald carefully developed models and plans, and, along with the aid of other references, was able to furnish an outstanding assignment. Additionally, the sketches which he developed for this assignment were very valuable to two other design technicians for the

completion of their work.

Donald has also performed effectively in presenting his work to his superiors and to outside clients. His presentations are organized and professional as his techniques for matting and laminating greatly enhance the quality of his art.

Donald attempts to comply with office responsibilities as well. He often registers each job in the office log upon completion. He frequently lists costs and steps estimation to be utilized for the department's weekly and monthly budget reports. At times, Donald neglects to ascertain whether supplies need to be ordered. In one instance he did not check the contact printer to determine if it was operating properly. Donald attributes these oversights to his hectic and demanding schedule.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Donald SimpsonPosition Graphics Design Technician

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>4</u>
JOB COMPETENCE	<u>5</u>
TASK INITIATIVE	<u>5</u>
JOB DISCIPLINE	<u>5</u>
APTITUDE	<u>5</u>
JUDGMENT	<u>4</u>
RELIABILITY	<u>4</u>
QUALITY OF WORK	<u>5</u>
KNOWLEDGE	<u>5</u>
EMOTIONAL STABILITY	<u>4</u>
COOPERATION	<u>5</u>
PERSONALITY	<u>4</u>
OVERALL	<u>4.5</u>

Signature of Rater Robert Mason

Name: Phillip Walton
POSITION: Graphics Design Technician
AGE: 53 SALARY: \$13,750/yr.
EDUCATION: B.A. Graphics (1975)
Univ. of Houston

Phillip is a capable design technician. He has the ability to render artwork in accordance with requests from his supervisor. At times, though, the quality of his work suffers from poor planning.

Because of this lack of planning, Phillip's models and sketches tend to be of little use to other design technicians assigned to similar projects. This is ironic as Phillip devotes a large amount of time to the development of sketches, occasionally at the expense of project deadlines. Through experience, his supervisor has learned to make Phillip's deadlines earlier than those of the other technicians so as to assure completion of assignments.

Last month Phillip was working on an assignment which required extensive work to be completed in a very short time. Phillip neglected to consult the client and his supervisor frequently enough, thus causing a missed deadline. When the assignment was actually completed, its presentation to the client was less than satisfactory because of mediocre mounting and laminating.

Phillip tends to ignore his administrative responsibilities on occasion. He recently neglected to order supplies which were low in inventory. This caused other technicians to be without sufficient quantities of materials to use for their assignments.

Phillip usually logs out each assignment upon its culmination and checks equipment to determine whether it is functioning properly. He tends to be less than accurate in his budget estimations, however. This seems to reflect his poor planning skills.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Phillip WaltonPosition Graphics Design Technician

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>3</u>
JOB COMPETENCE	<u>3</u>
TASK INITIATIVE	<u>2</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>3</u>
RELIABILITY	<u>2</u>
QUALITY OF WORK	<u>2</u>
KNOWLEDGE	<u>4</u>
EMOTIONAL STABILITY	<u>3</u>
COOPERATION	<u>3</u>
PERSONALITY	<u>2</u>
OVERALL	<u>2.8</u>

Signature of Rater Robert Mason

NAME: Theodore Marin
POSITION: Graphics Design Technician
AGE: 29 SALARY: \$15,500/yr.
EDUCATION: B.A. Art (1975)
Univ. of Minn.

Theodore has consistently worked diligently on his art assignments. He has the ability to artistically capture the ideas and needs of his supervisors and clients, and he takes a lot of pride in his work.

On Theodore's last project, which had a very pressing deadline, the resulting final product was approved after a few revisions. Theodore designed this project conscientiously by using various layouts and sketches. It was apparent that he executed the artwork in the sequential manner necessary for approved projects. However, the models he utilized for the project lacked clarity and, when another design technician attempted to use them, he encountered a great deal of difficulty. The model could not be used to augment this other technician's work.

Last month Theodore was assigned to develop a layout of a brochure for a major client. His work proved to be efficient with regard to the use of printing and photographic techniques. However, the presentation of the final product could have been enhanced if Theodore's mounting process was more than merely adequate.

On a recent project, Theodore was required to work closely with another design technician for completion of the assignment. The project required frequent consultation with the graphic coordinator and the outside client as well. Because of this, Theodore tended to neglect consulting with his co-worker. This caused difficulties with the project but, nevertheless, it was completed as scheduled.

Theodore tries to accommodate the administrative functions of his position. He frequently checks the equipment to determine whether it is in sufficient working condition. He carefully assesses budgetary data for the department's reports. Consequently, he checks material and supplies to determine departmental needs. Occasionally he neglects to enter project completion dates in the departmental log, though.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Theodore MarinPosition Graphics Design Technician

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>4</u>
JOB COMPETENCE	<u>3</u>
TASK INITIATIVE	<u>4</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>4</u>
RELIABILITY	<u>3</u>
QUALITY OF WORK	<u>3</u>
KNOWLEDGE	<u>3</u>
EMOTIONAL STABILITY	<u>5</u>
COOPERATION	<u>3</u>
PERSONALITY	<u>3</u>
OVERALL	<u>3.5</u>

Signature of Rater Robert Mason

NAME: Theodore Marin
POSITION: Graphics Design Technician
AGE: 62 SALARY: \$15,500/yr.
EDUCATION: B.A. Art (1942)
Univ. of Minn.

Theodore has consistently worked diligently on his art assignments. He has the ability to artistically capture the ideas and needs of his supervisors and clients, and he takes a lot of pride in his work.

On Theodore's last project, which had a very pressing deadline, the resulting final product was approved after a few revisions. Theodore designed this project conscientiously by using various layouts and sketches. It was apparent that he executed the artwork in the sequential manner necessary for approved projects. However, the models he utilized for the project lacked clarity, and when another design technician attempted to use them, he encountered a great deal of difficulty. The model could not be used to augment this other technician's work.

Last month Theodore was assigned to develop a layout of a brochure for a major client. His work proved to be efficient with regard to the use of printing and photographic techniques. However, the presentation of the final product could have been enhanced if Theodore's mounting process was more than merely adequate.

On a recent project, Theodore was required to work closely with another design technician for completion of the assignment. The project required frequent consultation with the graphic coordinator and the outside client as well. Because of this, Theodore tended to neglect consulting with his co-worker. This caused difficulties with the project but, nevertheless, it was completed as scheduled.

Theodore tries to accommodate the administrative functions of his position. He frequently checks the equipment to determine whether it is in sufficient working condition. He carefully assesses budgetary data for the department's reports. Consequently, he checks materials and supplies to determine departmental needs. Occasionally he neglects to enter project completion dates in the departmental log, though.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Theodore MarinPosition Graphics Design Technician

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>4</u>
JOB COMPETENCE	<u>3</u>
TASK INITIATIVE	<u>4</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>4</u>
RELIABILITY	<u>3</u>
QUALITY OF WORK	<u>3</u>
KNOWLEDGE	<u>3</u>
EMOTIONAL STABILITY	<u>5</u>
COOPERATION	<u>3</u>
PERSONALITY	<u>3</u>
OVERALL	<u>3.5</u>

Signature of Rater Robert Mason

NAME: Walter Payson
POSITION: District Manager--Production
AGE: 37 SALARY: \$27,500/yr.
EDUCATION: M.B.A.--U.C.L.A. (1969)
B.S. Business Admin. (1965)

Walter has been a District Production Manager for several years. His district's production has been operated adequately since he has been the district manager.

Walter is generally reliable and attempts, usually successfully, to meet all production target dates. He is effective at setting production goals and meeting pre-planned objectives.

Occasionally Walter encounters difficulties which impede his performance as a manager. Last month, for example, Walter was ineffective at resolving a conflict between two of his subordinates. Fortunately, the issue in question passed and within a few days, these two subordinates were able to resume working together in a cooperative nature.

Walter's staff usually performs at adequate levels. Their performance is usually enhanced because Walter effectively provides them with the information required for successful task completion. However, he tends to neglect follow-up responsibilities occasionally, resulting in partially incomplete or inaccurate work. However, the

extent of the inaccuracies rarely is great enough to cause a missed deadline.

Walter is strong in analytical ability and is generally able to comprehend the demands and requirements of the work for which his department is responsible. He is generally decisive when necessary, and for the most part, is able to assess the ramifications of the decisions which he makes.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Walter PaysonPosition District Manager--Production

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>3</u>
JOB COMPETENCE	<u>4</u>
TASK INITIATIVE	<u>3</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>3</u>
RELIABILITY	<u>3</u>
QUALITY OF WORK	<u>4</u>
KNOWLEDGE	<u>4</u>
EMOTIONAL STABILITY	<u>4</u>
COOPERATION	<u>4</u>
PERSONALITY	<u>3</u>
OVERALL	<u>3.5</u>

Signature of Rater Robert Mason

NAME: Ronald Silver
POSITION: District Manager--Production
AGE: 45 SALARY: \$29,000/yr.
EDUCATION: M.B.A. Northwestern Univ. (1961)
B.S. Marketing (1957)

Ronald is a motivated manager. He is admired by his peers, his subordinates, and his superiors. His subordinates usually perform at effective levels basically because of Ronald's leadership ability.

Ronald is effective at coordinating the work of his subordinates. On a recent project which he was heading, he delegated portions of the work to his staff. Through the provision of information and necessary procedures, as well as through following up and monitoring the work of his staff, the project was completed as per the target date.

During one of his department's assignments, two of Ronald's subordinates who were required to work very closely had difficulties in maintaining a cooperative working relationship. Through meeting with each of them individually and together Ronald was able to resolve their problems. After these two subordinates resumed their work on this assignment, they were able to work together effectively.

Ronald usually has little difficulty in maintaining

goals and deadlines. He achieves this because he utilizes efficient planning techniques. On one recent assignment, Ronald was able to meet production deadlines by keeping in frequent contact with his superiors and then channeling any new information to his staff. This proved valuable in that his staff was able to alter their work accordingly for completion as scheduled. Additionally, Ronald maintained schedules for follow-up and direction in order to assure completion of the project in accordance with the deadline.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Ronald SilverPosition District Manager--Production

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>4</u>
JOB COMPETENCE	<u>5</u>
TASK INITIATIVE	<u>5</u>
JOB DISCIPLINE	<u>5</u>
APTITUDE	<u>5</u>
JUDGMENT	<u>4</u>
RELIABILITY	<u>4</u>
QUALITY OF WORK	<u>5</u>
KNOWLEDGE	<u>5</u>
EMOTIONAL STABILITY	<u>4</u>
COOPERATION	<u>5</u>
PERSONALITY	<u>4</u>
OVERALL	<u>4.6</u>

Signature of Rater Robert Mason

NAME: Martin Glass
POSITION: District Manager--Production
AGE: 53 SALARY: \$25,000/yr.
EDUCATION: M.B.A. New York Univ. (1954)
B.S. Management--N.Y.U. (1950)

Martin is aware of basically all of the demands of his job. Last month Martin was responsible for an important project which required the efforts of his subordinates for its completion. These subordinates enjoyed working with Martin as he usually provided them with the information and guidance necessary for successful completion of the task. Martin's superior complimented both him and his staff for a job well done.

Two months ago Martin was assigned a very important project by this same superior. Martin was aware of the procedures required for this project as he kept in close contact with his superior. However, it seemed that Martin did not fully comprehend the high priority of this project. This caused Martin to allow his other duties and responsibilities to interfere with the completion of the project. The project was not finished and reviewed until two weeks after the deadline.

Similar problems with deadlines have recently occurred for Martin on a few of his projects. One of the long term projects he has been working on is becoming

slightly behind schedule. The quality of the work is adequate but two deadlines were already missed. Though he effectively delegated portions of the work to his staff, he was lax in emphasizing the work deadlines for them. He consistently neglected to verify whether the work was being completed as required. When Martin called upon his staff to assess their work, he was quite puzzled with what he discovered. He could not understand why their work had not reached the point it should have. Even after furiously working overtime, Martin and his staff could only complete this phase of the project by three days after the deadline. Consequently, this caused the next phase of the project to be delayed as its completion was contingent upon the completion of the previous phase.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Martin GlassPosition District Manager--Production

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>3</u>
JOB COMPETENCE	<u>3</u>
TASK INITIATIVE	<u>2</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>3</u>
RELIABILITY	<u>2</u>
QUALITY OF WORK	<u>2</u>
KNOWLEDGE	<u>4</u>
EMOTIONAL STABILITY	<u>3</u>
COOPERATION	<u>3</u>
PERSONALITY	<u>2</u>
OVERALL	<u>2.8</u>

Signature of Rater Robert Mason

NAME: Louis Ryan
POSITION: District Manager--Production
AGE: 29 SALARY: \$28,500/yr.
EDUCATION: M.B.A.--Univ. of Georgia (1977)
B.S. Management (1974)

Louis has worked very diligently at his job. He appears to be generally familiar with all of the responsibilities and requirements of his position.

Louis tends to have problems meeting deadlines, however. This can be attributed to his thoroughness and his concern with maintaining a high level of quality for all the work in his department. An incident of this nature occurred in his department two weeks ago. Though Louis carefully planned all phases of a particular project, the work was not completed by the target date, thus causing a delay in the production schedule. However, the quality of his department's analysis was extremely high and its thoroughness proved to be beneficial to the company.

Louis is effective in obtaining information from personnel at all levels of production. However, he has occasionally overlooked his responsibility of providing information to and directing his subordinates. This seems to be because of his concern with high quality of work, which causes him to neglect communicating with and updating his subordinates. Nevertheless, problems which have

arisen from this lack of communication have rarely tended to be so severe in nature that they have jeopardized completion of assignments.

Louis maintains an effective working relationship with his staff. His staff believes he is a devoted manager, who is very thorough in his work. This might be the reason for the basically high levels of job performance by these subordinates.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Louis RyanPosition District Manager--Production

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>4</u>
JOB COMPETENCE	<u>3</u>
TASK INITIATIVE	<u>4</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>4</u>
RELIABILITY	<u>3</u>
QUALITY OF WORK	<u>3</u>
KNOWLEDGE	<u>3</u>
EMOTIONAL STABILITY	<u>5</u>
COOPERATION	<u>3</u>
PERSONALITY	<u>3</u>
OVERALL	<u>3.5</u>

Signature of Rater Robert Mason

NAME: Louis Ryan
POSITION: District Manager--Production
AGE: 62 SALARY: \$28,500/yr.
EDUCATION: M.B.A.--Univ. of Georgia (1944)
B.S. Management (1941)

Louis has worked very diligently at his job. He appears to be generally familiar with all of the responsibilities and requirements of his position.

Louis tends to have problems meeting deadlines, however. This can be attributed to his thoroughness and his concern with maintaining a high level of quality for all the work in his department. An incident of this nature occurred in his department two weeks ago. Though Louis carefully planned all phases of a particular project, the work was not completed by the target date, thus causing a delay in the production schedule. However, the quality of his department's analysis was extremely high and its thoroughness proved to be beneficial to the company.

Louis is effective in obtaining information from personnel at all levels of production. However, he has occasionally overlooked his responsibility of providing information to and directing his subordinates. This seems to be because of his concern with high quality work, which causes him to neglect communicating with and updating his subordinates. Nevertheless, problems which have arisen

from this lack of communication have rarely tended to be so severe in nature that they have jeopardized completion of assignments.

Louis maintains an effective working relationship with his staff. His staff believes he is a devoted manager, who is very thorough in his work. This might be the reason for the basically high levels of job performance by these subordinates.

EMPLOYEE PERFORMANCE EVALUATION

Name of Employee Louis RyanPosition District Manager--Production

Rate the following on a scale of 1 to 5 (1 is low; 5 is high).

DEPENDABILITY	<u>4</u>
JOB COMPETENCE	<u>3</u>
TASK INITIATIVE	<u>4</u>
JOB DISCIPLINE	<u>3</u>
APTITUDE	<u>4</u>
JUDGMENT	<u>4</u>
RELIABILITY	<u>3</u>
QUALITY OF WORK	<u>3</u>
KNOWLEDGE	<u>3</u>
EMOTIONAL STABILITY	<u>5</u>
COOPERATION	<u>3</u>
PERSONALITY	<u>3</u>
OVERALL	<u>3.5</u>

Signature of Rater Robert Mason

APPENDIX C
RATING SCALES

Graphics Design Technicians

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Cooperation with Co-workers: The ability to work with peers, subordinates, and superiors in a manner that enhances task achievement.

- 7 Works closely with peers, subordinates, and superiors on joint projects.
- 6 Informs those concerned of the status of the assigned project.
- 5 Would allow and encourage co-workers to utilize his sketches.
- 4 Would consult with the graphic coordinator whenever a problem with an assignment occurred.
- 3 At times would neglect to work closely with the administrative section with regard to requests and procedures.
- 2 Would generally hesitate to offer opinions and suggestions to others.
- 1 Would generally not assist peers with their work if requested to do so.

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Job Knowledge: Knowledge of duties, rules, and procedures necessary to do one's job.

- 7 Understands the sequential methods in which the art assignments should be developed.
- 6 Understands the requirements of and the necessities of the assignment.
- 5 Is competent in the various methods used for the preservation of and presentation of the art assignment.
- 4 Has the ability to produce an acceptable art assignment.
- 3 Would probably neglect to use all of the design aids possible when developing the art assignment.
- 2 Would probably neglect to satisfactorily mount the art assignment when preparing to present it to the client.
- 1 Would probably turn in an art assignment which did not capture the concept which the client was looking for.

Please rate this employee on the following dimension by circling the number which you feel most apporpriately describes this individual.

Organization: The ability to achieve task completion through effective planning strategies.

- 7 Would develop clear and concise working plans which could be utilized by all technicians for reference.
- 6 Would develop and turn in an acceptable art assignment according to the scheduled deadline.
- 5 Would design the assignment in a sequential method from resources of own knowledge and abilities.
- 4 Would plan the supplies and quantities of them needed for a new art assignment.
- 3 Would probably design reference sketches which are of little use to anyone else.
- 2 Would neglect to check for the priorities of assigned art projects.
- 1 Would complete the art assignment after the deadline and not inform those concerned that the assginment would be late.

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Responsibility: The ability to accept the ramifications of actions taken and to meet the demands of the job.

- 7 Would make sure to hand in the art assignment as scheduled.
- 6 Would make sure to list the costs for a particular art assignment and hand it in to the correct party.
- 5 Would inform the proper individual that supplies need to be reordered when the inventory decreases.
- 4 Would most probably log out the assignment upon its completion.
- 3 Does not order the sufficient amount of supplies for the assignment.
- 2 Would neglect to inform the correct individual about equipment that is malfunctioning.
- 1 Would neglect to inform the graphic coordinator that the art assignment will not be completed as scheduled.

Manager of Production

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Cooperation with Co-workers: The ability to work with peers, subordinates, and superiors in a manner that enhances task achievement.

- 7 Works closely with peers, subordinates, and superiors on all phases of the task.
- 6 Would help a subordinate with completing an assignment.
- 5 Would inform subordinates of the implementation of new procedures.
- 4 Would provide information to co-workers when asked.
- 3 Would, at times, neglect to inform co-workers of errors.
- 2 Would neglect to update a subordinate on the status of a project.
- 1 Would not offer assistance to a subordinate if asked.

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Job Knowledge: Knowledge of duties, rules, and procedures necessary to do one's job.

- 7 Understands courses of action in relation to their effects on other matters.
- 6 Chooses the correct action to remedy a particular situation.
- 5 Realizes differences in various pieces of information.
- 4 Understands and applies different procedures on the job.
- 3 Would neglect to fulfill one job demand occasionally.
- 2 Does not follow and adhere to specified channels of communication.
- 1 Does not fully comprehend the purposes for particular tasks on the job.

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Organization: The ability to achieve task completion through effective planning strategies.

- 7 Would be able to perform effectively under changing situations.
- 6 Would be aware of differing priorities of several projects.
- 5 Would be aware of which individuals are assigned to different portions of a project.
- 4 Would be aware of the deadlines for all projects in which this individual is coordinating.
- 3 Would plan for and set goals for assignments as well as for subordinates.
- 2 Would not effectively utilize staff for completing various projects.
- 1 Would ignore or neglect to learn about a project's deadlines.

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Responsibility: The ability to accept the ramifications of actions taken and to meet demands of the job.

- 7 Would take action when called upon to do so and accept the responsibility for this action.
- 6 Would take corrective actions when necessary.
- 5 Would provide feedback to subordinates pertaining to job performance.
- 4 Would take charge to guide, direct and coordinate the activities of subordinates.
- 3 Would, at times, neglect to interpret procedures for subordinates.
- 2 Would not actively follow up on subordinates to check for quality work.
- 1 Would neglect to determine if a project will be complete as scheduled.

Both Positions

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Promotion Potential

- 7 Would definitely promote without any reservations.
- 6 Would most likely promote.
- 5 Would probably promote.
- 4 Would possibly promote.
- 3 Would probably not promote.
- 2 Would most likely not promote.
- 1 Would definitely not promote.

Salary

- 7 Would definitely increase this individual's salary without any reservations.
- 6 Would most likely increase this individual's salary.
- 5 Would probably increase this individual's salary.
- 4 Would possibly increase this individual's salary.
- 3 Would probably not increase this individual's salary.
- 2 Would most likely not increase this individual's salary.
- 1 Would definitely not increase this individual's salary.

Please rate this employee on the following dimension by circling the number which you feel most appropriately describes this individual.

Effort: At what level of effort do you believe this individual would have to maintain in order to perform at his present level?

- 7 an extreme amount of effort
- 6 a great deal of effort
- 5 a moderately high level of effort
- 4 average effort
- 3 some effort
- 2 little effort
- 1 very little effort

APPENDIX D
DEMOGRAPHIC DATA SHEET

Now that you have completed the employee ratings,
please answer the following three questions:

Occupation _____

Age _____

Sex _____

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