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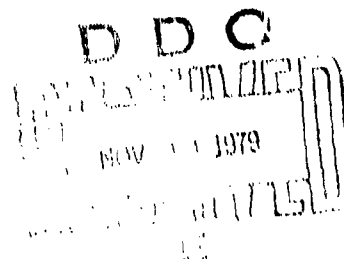
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AN EXPERIMENTAL EVALUATION OF THE EFFECTS OF
A REALISTIC JOB PREVIEW ON MARINE
RECRUIT AFFECT, INTENTIONS
AND BEHAVIOR

Stanley O. Horner
William H. Mobley
Bruce M. Meglino



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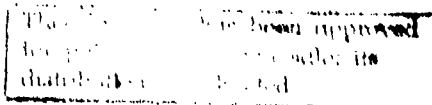
Center for Management and Organizational Research
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the RJP groups had less expected job ambiguity and experienced a change in role outcome values but not expectations. At the individual level, met expectations were significantly related to attrition and propensity to withdraw. A conceptual model is presented, relevant literature reviewed, and results and further research implications discussed.

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Management Summary

What is a Realistic Job Preview (RJP)?

An RJP is an attempt to give recruits or potential recruits an accurate preview of what life in the organization will be like. Unrealistic expectations are thought to contribute to adjustment and attrition problems. Thus, to the extent an RJP helps create realistic expectations, these problems may be reduced. Further, an RJP can be used to teach recruits how to cope with the new environment and present role models illustrating successful adaptation to the new environment.

What was the RJP used in this study?

The RJP used in this study was an 80 minute video tape jointly developed by the USC research team and the Training Support Center of the USMC Parris Island Recruit Depot. The RJP included realistic footage from all phases of recruit training. Interviews and voice overs from a cross section of recruits and DI's were designed to provide accurate information, role models, and coping skills. The RJP was called PIRATE, Parris Island Recruit Assimilation Training Exercise.

How was the RJP evaluated?

The RJP was evaluated using 678 Parris Island male, first-term, enlisted recruits. The experimental design included groups receiving the RJP, control groups not receiving the RJP, and placebo groups receiving another non-RJP film. The experiment was replicated in three different battalions. The RJP was given during the second full day at the recruit depot.

What were the major results?

The groups receiving the RJP had lower, but statistically not significant, attrition at the end of recruit training (10.3% for the RJP vs. 14.9% for controls $p < .17$). However, six-month and twelve-month attrition were significantly lower for the RJP groups compared to the controls (14.9% vs. 23.8%, $p < .05$ and 22.4% vs. 33.1% respectively). The RJP groups also had significantly higher performance ($p < .001$) than did the controls as measured by the Military Skills Marks (MSM).

Further, although the RJP did not seem to significantly change role outcome expectations, it did lead to lower expected ambiguity and changes in outcome values or desirability. Finally, at the individual level of analysis, met expectations were shown to be significantly related to attrition and propensity to withdraw.

What are the implications of the results?

Although the theoretical model serving as a basis for the study was only partially supported, the results, in total, suggest that the RJP does have sufficient utility to warrant continued use and evaluation.

Development and implementation of RJP's are relatively inexpensive compared to the potential savings of even a few percentage points in attrition or increase in survival days. Further, it may be argued on moral grounds that RJP's are constructive.

What further research is needed?

The RJP in the present study was given after recruits arrived at the recruit depot. Conceptually and pragmatically an experimental evaluation of RJP's at the recruiting step, prior to joining, is needed. While the recruiting function may object, it could be argued that self-selection decisions will be improved with a RJP prior to enlistment, thus potentially reducing attrition among those who do join.

Finally, future RJP research should carefully evaluate the increased use of teaching coping skills and providing effective role models in the RJP treatment.

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Abstract

AN EXPERIMENTAL EVALUATION OF THE EFFECTS OF A REALISTIC JOB PREVIEW ON
MARINE RECRUIT AFFECT, INTENTIONS AND BEHAVIOR

Stanley O. Horner, William H. Mobley, and Bruce M. Meglino

A major objective of the present study was to develop a conceptual model of the psychological mechanisms by which realistic information given to new recruits after organizational entry may influence the affective, intentional, and behavioral responses of newcomers toward the organization. This model was then tested in a longitudinal field experiment involving U. S. Marine Corps recruits.

The independent variable at the group level was receipt versus non-receipt of the realistic job preview (RJP). The realistic preview was an 80-minute color video film covering the most salient aspects of recruit training. "Met expectations" (Porter and Steers, 1973) was the primary independent variable at the individual level of analysis. Dependent variables included turnover, cognitive and intentional precursors of turnover, performance, and psychological explanatory mechanisms.

More specifically, it was hypothesized that the RJP group would have lower turnover, fewer intentions and thoughts of leaving, greater job satisfaction and organizational commitment. The explanatory mechanisms producing these outcomes were tested. It was hypothesized that the RJP group would report: a greater feeling of trust and honesty toward the organization, a significant change in values, would have clearer role expectations, greater efficacy expectations, enhanced ability to cope, and better job performance than the control groups. At the individual level of analysis, the above hypotheses were tested by correlating several types of expectation sets with the criteria.

A total of 678 Marine Corps male enlisted basic trainees were assigned to twelve groups on an essentially random basis. There were four groups in each of the three replications of the experiment.

The results showed a statistically non-significant reduction in turnover at the end of three months, 10.3% for RJP versus 14.9% for controls ($p < .17$). However six-month and one-year attrition rates were significantly lower for the RJP group. The hypothesized precursors to turnover did not receive support. The influence of several explanatory mechanisms was supported. The RJP group had higher performance scores, expected less job ambiguity, and changed their desirability ratings (value) attached to certain outcomes more than the control groups. There was weak support for the ability of the RJP group to better cope with difficult aspects of their new job than the control groups. At the individual level, met expectations were correlated, as expected, with the criteria and other explanatory mechanisms as suggested by Porter and Steers (1973).

Limitations, integration, and practical implications of the study are presented. It was concluded that the RJP-turnover process is complex and the conceptual model presented needs to be refined and retested. However, the RJP is of sufficient utility to argue for continued utilization and evaluation with particular emphasis on coping and modeling mechanisms and evaluation at the pre-enlistment step.

I.

INTRODUCTION

Experiences encountered by an individual prior to and shortly after entry into a new organization have a profound effect upon the individual's attitudes and behavior (see Van Maanen, 1975; Wanous, 1977, for reviews). A number of studies have shown that early turnover is related to the new employee's lack of realistic information concerning the job and the organization (see Raphael, 1975; Scott, 1972; Wanous, 1977, for reviews).

Several recent studies of military and business organizations have suggested supplying new and potential employees with realistic information concerning the organization. In a review of career expectations in the military, Wiskoff (1976) concluded that thought should be given to increasing group cohesiveness, providing reality oriented training, and introducing more realistic leadership expectations. Glickman, Goodstadt, Frey, Korman, and Romanczuk (1974) conducted a longitudinal study of the U.S. Navy. They concluded:

The accuracy of expectations conveyed to recruits . . . needs to be enhanced.

Inappropriate expectations lead to disenchantment on the part of recruits, which in turn lead to lessened interest in reenlisting, as well as negative feedback to prospective recruits among friends and relatives (p. 5).

From a longitudinal study of attrition in the Marine Corps, Mobley, Hand, Logan, and Baker (Note 5) suggested that an initial recruit depot program aimed at clarifying expectations as well as enhancing the recruit's expectancy of completing may help reduce attrition among first-term male enlistees. In a more recent longitudinal study, Lau (1979) suggested providing entering Navy recruits with realistic information as a procedure to reduce attrition.

Numerous attempts have been undertaken to reduce attrition by giving potential or new employees a realistic job preview (RJP). While several of these studies found significant reductions in early turnover, others found the realistic orientation did not reduce turnover.

The present research seeks to further evaluate the utility of realistic job preview. More fundamentally, the research seeks to integrate the literature on RJP's, organizational entry and organizational socialization, in an attempt to more fully understand the affective, intentional, and behavioral response of new employees toward the organization.

The remainder of this introductory chapter is devoted to an analysis of previous RJP research, a statement of objectives for the present research, and an overview of subsequent sections.

Realistic Job Previews

In an excellent review of the organizational entry literature, Wanous (1977) reviewed six field studies that were concerned with the effects of RJP's on turnover. He concluded:

The use of realistic job previews in the recruitment of new members has shown consistent results in reducing the turnover of newcomers for a wide variety of organizations. Conclusions about the effect of realism on other facets of the entry process must remain tentative, however. (Wanous, 1977, p. 615).

Since that review, two recent RJP studies failed to find a significant reduction in turnover (Ilgen & Dugoni, Note 3; Reilly, Sperling, & Tenopyr, 1979). In order to reassess the impact of RJP's on attitudes and behavior, all the available RJP studies will be reviewed here, including those that did not use turnover as a criterion.

Wanous (1978) distinguished between the RJP, a realistic preview given prior to organizational entry, and realistic socialization where the preview is given after

entry. The following literature review is divided according to the timing of the realistic information; however, the term RJP is used here to refer to both pre- and post entry previews. No matter when the RJP is presented, it may be considered part of the socialization process.

Timing of the RJP and Turnover Results

Prior to job acceptance. The studies presented in Table 1 administered the RJP before the applicants had accepted the job. Three of these studies (Macedonia, 1969; Weitz, 1956; Youngberg, 1963) found significant reductions in turnover among the group receiving the realistic information. Farr, O'Leary, and Bartlett (1973) found a significant reduction in attrition only for the white subjects. Wanous (1973) reported turnover of 50% in the traditional preview group and only 38% in the realistic group. Reilly, Sperling, and Tenopyr (1979) reported voluntary attrition rates of 15.4% and 10.0% in the control groups compared to 9.4% in the realistic preview group. Neither of these last two studies showed statistically significant results but they were in the expected direction. Wanous (1973) did find significantly fewer thoughts of quitting among the realistic preview group. This has been shown to be a precursor of attrition (Mobley, Horner, & Hollingsworth, 1979).

Table 1
Studies of RJF's Given Before Job Acceptance

Studies	Subjects	Basis for Realism	Design ^a	Observations	Turnover	Other Criteria and Results
Farr, O'Leary, & Bartlett (1973)	150 female sewing machine operator applicants	Simulation 2 hrs. work experience	R X 01, 02, 03 R T 01, 02, 03	2, 4, 6 weeks	White P < .05 Black n.s.	Job acceptance rates: Black n.s. Whites in realistic group had a higher refusal rate than whites in the control groups.
Macedonia (1963)	1,260 West Point Candidates	Booklet-survey of freshmen & seniors	R X 01 R 01	1 year	P < .05	Job acceptance rates higher in realistic preview group.
Beilly, Sperling & Tenopir (1973)	325 telephone operator applicants	Booklet-interviews of employees	R X 01, 02 R X 01, 02 R 01, 02	1, 6 months	n.s.	Job acceptance rates: Lower in realistic group P < .05
Nunes (1973)	80 female telephone operator applicants	15 min. film based on interviews with supervisors and employees	R 01 X 02 R 01 T 02	3 mos.	.10 < P < .20	Job acceptance rates n.s. Thoughts of Quitting P < .005 Job Satisfaction (JDI) Work P < .03 Supervision P < .005 Promotion n.s. Co-workers n.s. Lowered expectations n.s. Performance n.s.
Weitz (1956)	474 male life insurance agents	Booklet-survey of experienced agents	M X 01 M 01	1 year	P < .05	
Youngberg (1963)	484 male life insurance agents	Booklet-similar to one used by Weitz (1956)	M X 01, 02 M 01, 02	3 mos. 6 mos. 1 year	P < .10 P < .01	Performance n.s. Lower realism associated with not receiving the booklet.

^a R-matched assignment.
X-random assignment.
T-treatment.
01, 02, 0n-observations.

Several plausible explanations have been offered to explain the discrepancies in these findings. Reilly et al. (1979) suggested that the complexity of the job was an important factor influencing turnover. The jobs of sewing machine operator and telephone operator were cited as being less complex than the roles in the successful studies--West Point Cadets and life insurance agents. Wanous (1973) noted the high rate of unemployment in the geographical labor area during his study. Farr et al. (1973) suggested that there was no significant difference for Blacks in their study because the work sample test presented only intrinsic job related information. They suggested that the Black workers were more concerned with extrinsic job factors and were therefore unaffected by the RJP.

In general, the results in Table 1 tend to support the notion that RJP's do seem to have some impact on turnover when given prior to job acceptance. The usual explanation is that RJP's reduce unrealistic expectations which lead to increased job satisfaction and reduced propensity to withdraw among the applicants accepting the job (see Figure 1). Since all the RJP's in Table 1 were given prior to job acceptance, it is not possible to determine the effect of the RJP on turnover produced by realistic expectations independent of the self-selection

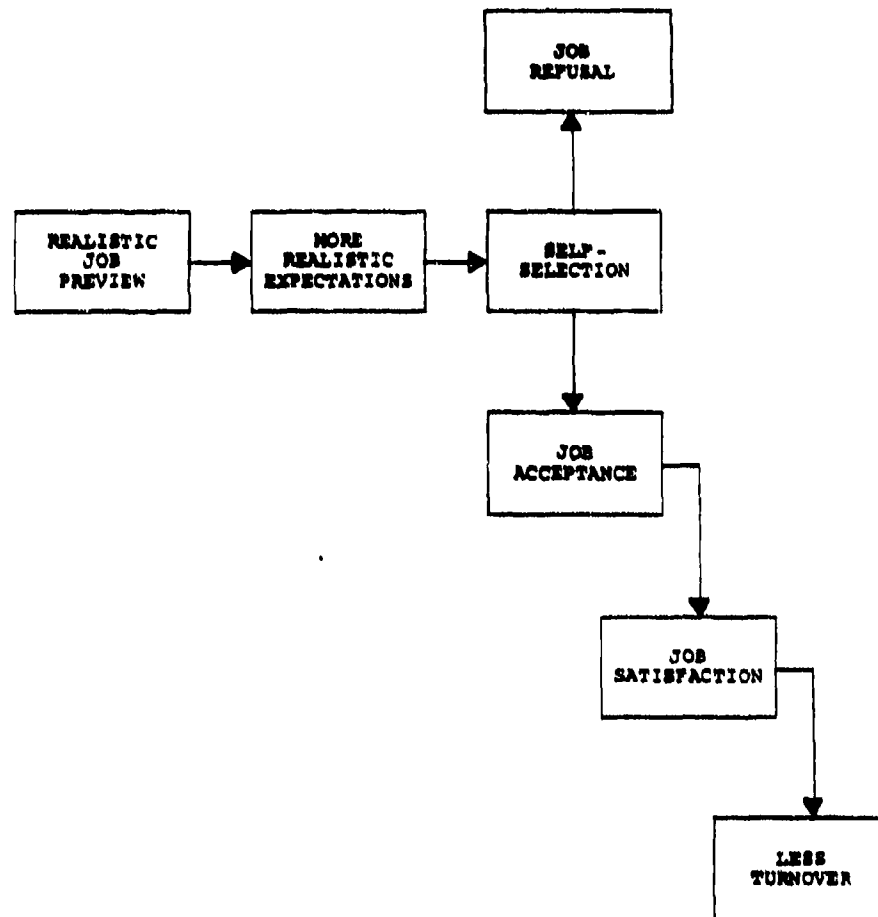


Figure 1. Traditional model of RJP and turnover.

process. Farr et al. (1973) found a higher job refusal rate among the white applicants in the RJP group. Macedonia (1969) reported a lower refusal rate among the treatment group, and Wanous (1973) found no significant difference. Reilly et al. (1979) reported a higher refusal rate among the realistic preview group. Whether or not there was a significant difference in the absolute number of job acceptances, the composition of the job acceptance group may have been quite different due to the treatment.

In order to show that the RJP's reduced unrealistic expectations it was necessary to measure initial expectations and perceptions on the job at a later time. Only two studies in Table 1 (Wanous, 1973; Youngberg, 1963) measured expectations. Both found that the RJP lowered unrealistic expectations. One way to assess the impact of the RJP on attitudes and behavior of newcomers, independent of the self-selection process, is to measure initial expectations after job acceptance, give the RJP, and then measure perceptions of the job at a later time.

After job acceptance. The studies presented in Table 2 gave the RJP after the applicants had accepted the job but before actual entry (Ilgen & Seely, 1974; Ilgen & Dugoni, Note 3), or after they had accepted the job and entered the organization (Datel & Lifrak, 1969;

TABLE 2
Studies of RJP's Given After Job Acceptance

Studies	Subjects	Basis for Realism	Design ^a	Observations	Turnover	Other Criteria and Results
Datal & Lifrak (1969)	839 male enlisted Army basic combat trainees	20 min. film edited, only negative information shown.	R 01 X 02, 03 R 01 T 02, 03 R 03	01-1st day 02-1 month 03-2 months	--	RJP raised distress levels Performance n.s.
Gomersall & Myers (1966)	200 female bonding operators, electronics manufacturer	One day orientations program	R X 01 R 01	2 months	--	Reduced absenteeism Improved performance (Significance levels not reported)
Ilgen & Dugoni (note 3)	160 male & female part-time baggers at a large retail store	Written report based on critical incidents submitted by employees	R X 01, 02 R 01, 02	01-day hired 02-2 to 3 months later	n.s.	RJP reduced unrealistic expectations Satisfaction n.s. Coping n.s. Trust & Honesty n.s.
Ilgen & Seely (1974)	468 West Point Cadets	Booklet - based on interviews with cadets and officers	R X 01 R 01	2 months	P < .05	

^a R-random assignment to groups
X-realistic preview
T-traditional orientation
01, 02...0n-observations over time

Gomersall & Myers, 1966). Only two of these studies measured turnover (Ilgen & Dugoni, Note 3; Ilgen & Seely, 1974). Ilgen and Seely (1974) found a significant reduction in turnover but did not measure expectations. Ilgen and Dugoni (Note 3) conducted the only study in which the RJP was given after job acceptance and the discrepancies between initial expectations and perceptions were measured. They found no support for the idea that realistic expectations lead to reduced attrition; however, there was a high rate of involuntary turnover in the sample due to economic conditions. No study has shown support for the concept that realistic expectations lead to reduced turnover when the self-selection process is controlled.

Other Criteria and Results

As can be seen from Tables 1 and 2, one study (Ilgen & Dugoni, Note 3) found no influence of the RJP on satisfaction. Two studies (Gomersall & Myers, 1966; Wanous, 1973) reported significantly higher job satisfaction for the RJP group. Wanous (1973) and Youngberg (1963) reported no significant difference in job performance. Gomersall and Myers (1966) reported significantly higher performance and lower absenteeism for the treatment groups. Ilgen and Dugoni (Note 3) found no effect of realism on the newcomers' ability to cope with the job nor did the newcomers

have greater feelings of trust and honesty in the organization. In agreement with the findings of Wanous (1977), little can be said about the effects of realism on facets of the entry process other than turnover.

Treatments

Six of the RJP studies reported in Tables 1 and 2 used written reports or booklets to convey the realistic information to the treatment groups. Four of these studies reported significant reductions in turnover among the treatment groups (Ilgen & Seely, 1974; Macedonia, 1969; Weitz, 1956; Youngberg, 1963). The other two studies (Ilgen & Dugoni, Note 3; Reilly et al., 1979) found no significant results for any of the criterion. Ilgen and Dugoni (Note 3) and Youngberg (1963) found that the booklets used in their studies reduced unrealistic expectations. Dattel and Lifrak (1969) used a 20-minute black and white film which had been edited to include mostly the negative aspects of basic combat training to the RJP group of trainees. Wanous (1973) used a 15-minute color film which was based on interviews with supervisors and employees. Dattel and Lifrak (1969) reported that the film was successful in raising the distress level among the trainees. Wanous (1973) found that his film lowered unrealistic expectations to more realistic levels. Farr et al. (1973)

gave a two-hour work sample test to the realistic group. Turnover was reduced for whites. Gomersall and Myers (1966) used an all-day orientation program which reduced absenteeism and increased performance. A variety of treatments have been used and all methods produced some desirable effects on the subjects.

Experimental Designs

A wide variety of experimental designs have been used in RJP studies. Four of the six studies in Table 1 and all of the studies in Table 2 used random assignment to groups. Weitz (1956) and Youngberg (1963) used matching to equate the control and experimental district offices. Observations were made anywhere from several hours to one year after the RJP was given. Five studies measured the criterion over several points in time (Datel & Lifrak, 1969; Farr et al., 1973; Ilgen & Dugoni, Note 3; Reilly et al., 1979; Wanous, 1973; Youngberg, 1963). Overall, the RJP studies used adequate experimental designs.

Subjects

The RJP studies reported in Tables 1 and 2 used a wide variety of organizations including both military and business organizations. The sample sizes were adequate and both males and females were well represented in the studies.

Summary of RJP Research

It can be concluded from this brief review of RJP's that the evidence for the influence of realism operating through expectations to produce changes in affect, intentions, and behavior is somewhat confusing and often conflicting. Although a wide variety of organizations, adequate experimental designs, and large samples were used, the findings are not conclusive. The effect of the RJP on attitudes and behavior when controlling for self-selection is not clear.

The RJP studies were based upon a simplistic explanation (see Figure 1, p. 7) of how RJP's influence attitudes and behavior. One major problem with the RJP literature is the lack of a conceptual framework. Another problem is the failure to measure expectations and to relate the discrepancy between initial expectations and perceptions to affect, intentions, and behavior. In the RJP study that measured met expectations (Ilgen & Dugoni, Note 3), the term was operationalized by asking subjects what they expected to receive or to happen to them in their upcoming job. Then, at some later date, they were asked their perceptions of what the job and organization were really like. The difference between what was initially expected and their later perceptions of what

actually happened measured the individuals' degree of met expectations. Little attention was given to what outcomes should be included in the persons' expectation set or what dimensions of expectations should be measured.

Objectives

The major objective of the present research was to develop and test a conceptual model that would explain the psychological mechanisms by which RJP's influence the affective, intentional, and behavioral responses of the newcomer to an organization. No study has adequately evaluated the possible psychological processes by which RJP's influence attitudes and behaviors. Wanous (1973) and Ilgen and Dugoni (Note 3) conducted the only studies designed to identify the psychological processes involved. Neither study found any support for the mechanisms under consideration; however, there was an unusually high rate of unemployment during the former study and an unusually high rate of involuntary withdrawal in the later study.

Overview

In the next section, the organizational socialization and organizational entry literatures are briefly reviewed. The purpose of the review is to gain a better understanding of the psychological processes involved as new members are assimilated into organizations. The theoretical and empirical literature concerning the impact of met expectations on attitudes and behaviors are then reviewed. A model of the impact of RJP's on affect, intentions, and behavior of newcomers and the hypotheses suggested by the model and previous literature are then presented. The methodology used to test the model is presented, followed by the results, an integration of the findings, limitations, and implications of the study.

11.

ORGANIZATIONAL SOCIALIZATION, ORGANIZATIONAL ENTRY, AND MET EXPECTATIONS

Overview

In order to understand the process by which new members are successfully socialized into an organization, the organizational socialization literature cannot be ignored. Organizational socialization is:

The process by which a person learns the values, norms, and required behaviors which permit him to participate as a member of the organization. Presumably, this process is continuous throughout an individual's career with the organization (Van Maanen, 1975, p. 67).

Organizational socialization and organizational entry have been studied in near isolation from each other. The organizational entry literature is concerned with the processes that occur before entry (outsiders), shortly after entry (newcomers), and as the new members gain more experience (insiders) (Wanous, 1976). In his review of the organizational entry literature from the individual's perspective, Wanous (1977) treated organizational entry as more of an "event" than a process. He included only the post-entry behavior directly related to the act of entry. For the purpose of a literature survey, this was clearly a defensible approach. However, in order to

understand the psychological process by which new members are assimilated into organizations, the relevant literature from both the socialization and organizational entry areas should be included.

Organizational socialization is generally regarded as a developmental process that continues for as long as the individual remains in the organization (see Figure 3 for a summary of the phases in the socialization process). Where the entry literature has focused on new members joining organizations as an event, the socialization literature has focused on the long-run process. Based on an analysis of the similarities of these two areas a conceptual model, drawing from both areas, was developed. The purpose of the model is to focus the theoretical and empirical literature from both the organizational socialization and entry literature on the process of assimilating new members into organizations. (See Horner, 1979, for a detailed analysis of these literatures and a detailed rationale for the model.)

Summary of Organizational Entry and Socialization Process

The conceptual model presented in Figure 2, summarizes the relevant literature on the entry process. The role of expectations in the entry process is the major bridge between the organizational socialization and organi-

Table 3
Phases in the Organizational Socialization Process

Feldman (1976)	Graen (1976)	Machman & Suttle (1975)	Moore (1969)	Porter, Lawler & Machman (1975)	Schein (1968)
Anticipatory Realism Congruence	Initial Confrontation	Entry	Anticipatory	Prearrival	Unfreezing
Accommodation	Working Through	Encounter	Selection	Encounter	Learn organizational roles
Initiation to task					
Role defined					
Congruence of evaluation					
Initiation to group					
Role Management	Integrating	Metamorphosis	Continuing Commitment	Change and Acquisition	Build Commitment and Loyalty
Resolve outside and inside conflicts					Transition to a full fledged member
Outcomes					
General satisfaction					
Perceptual influence					
Internal work motivation					
Job involvement					

zational entry literature. During the anticipatory phase, the outsider generally develops a positive set of expectations toward the organization. In the accommodation phase, the newcomer's assessment of organizational reality is compared against the person's set of expectations. If there is no major discrepancy between what the individual expected and also valued and organizational reality, the individual has a good chance of successfully progressing through the role management phase and becoming an insider in the organization. If the discrepancy produces severe reality shock, several options are available to the individual. The person could leave the organization, stay but not be committed to the organization, try to change the organization, or change his perception of the discrepancy and the values attached to the expected outcomes. Whatever course is taken, if the role management phase is successful, positive outcomes for both the individual and the organization should result.

Since expectations are the key explanatory variable of attitudes and behavior in both the organizational entry and organizational socialization literature, the concept will be explored next.

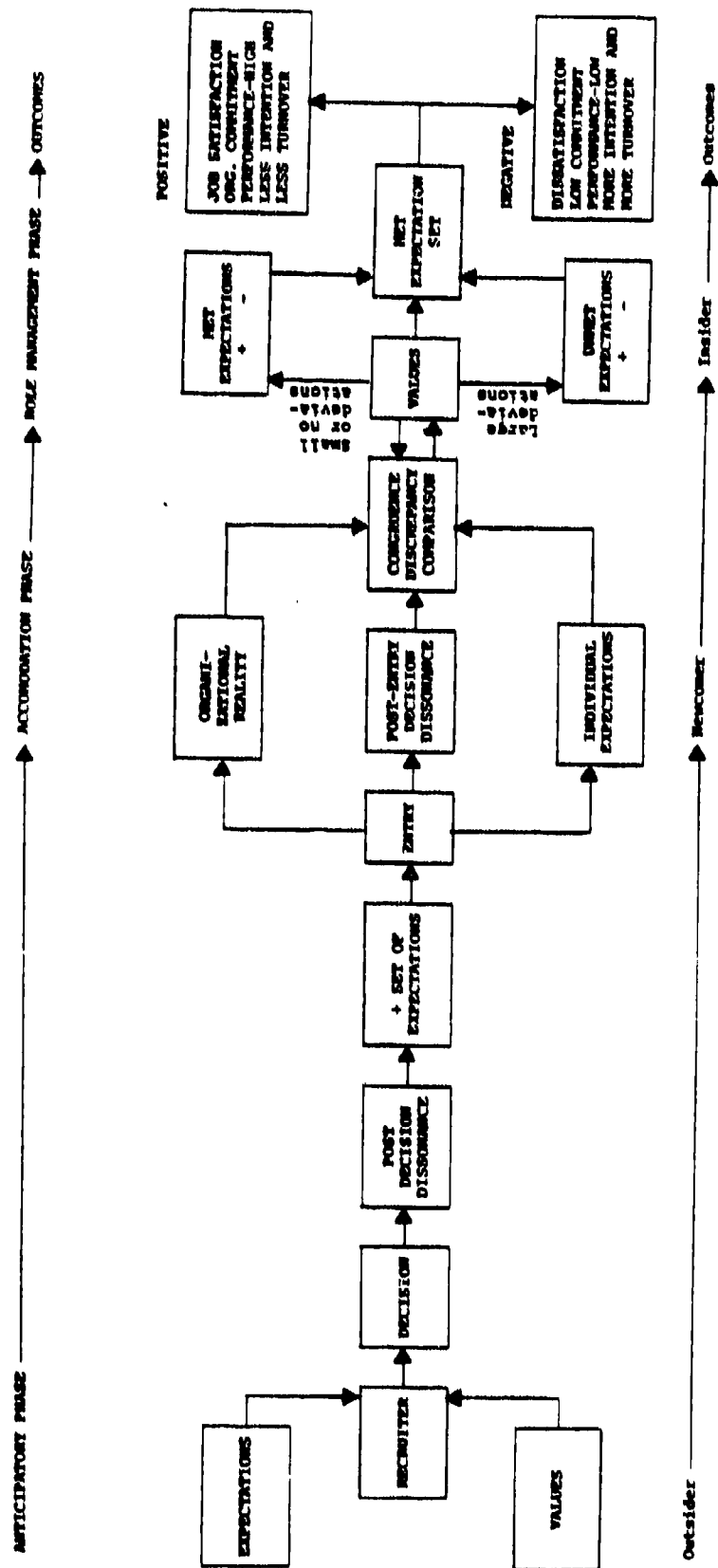


Figure 5. Model of the process of expectations and their influence on various outcomes.

The Concept of Met Expectation

"Met expectations" has been defined as "the discrepancy between what a person encounters on his job in the way of positive and negative experiences and what he expected to encounter" (Porter & Steers, 1973, p. 152). This concept involves a measure of expectations--"what a person expects to encounter"--and a measure of perceptions--"what a person encounters." The concept of "met expectations" is related to, but different from the notion of "expectations" or "expectancy." These terms appear in a wide variety of contexts dealing with the study of attitudes and behavior. The major areas include: personality theory (Maddi, 1972); work motivation and organizational choice (Vroom, 1964); modeling behavior (Bandura, 1977); cognitive dissonance (Festinger, 1957); organizational entry (Wanous, 1977); and in the organizational socialization literature (Van Maanen, 1975). The terms "expectations" and "expectancy" are often used interchangeably in the literature and the same will be done here. In general the term "expectation" refers to one's belief about what will occur in the future (Locke, 1969). Met expectations deal with the confirmation or disconfirmation of this belief.

Met Expectations Model

In a review of the literature concerning factors related to turnover in work situations, Porter and Steers (1973) concluded that the role of "met expectations" plays an important part in the decision to withdraw from an organization. They noted that each individual places varying importance on a set of "rewards" potentially available from the job. Porter and Steers (1973) suggested: "Whatever the composition of the individual's expectation set, it is important that those factors be substantially met if the employee is to feel it is worthwhile to remain with the organization" (p. 171). While this expectation set may vary among individuals, the following factors were suggested as important in the withdrawal decision: job satisfaction, pay, promotion, supervision, peer group interaction, and job content.

Porter and Steers (1973) suggested three possible alternatives for reducing turnover: (a) increase the level of outcomes desired by each individual; (b) allow the employees a greater selection of valued outcomes; and (c) increase the present or potential employees' accuracy and realism of expectations through increased communications concerning the nature of the job and the probable payoffs for effective performance. Although the model does not directly address negative outcomes, they are mentioned in the discussion as being important in the

withdrawal process.

There have been few attempts to directly test the hypothesis that met expectations affect satisfaction and turnover. The model is clearly a simplistic explanation of what happens from the time expectations go unmet until the decision to withdraw has been made. The model does little to explain the apparent link between met expectations, job satisfaction, and turnover. After evaluating the results of their own RJP and reconsidering the literature, Ilgen and Dugoni (Note 3) concluded:

To expect RJP's to influence job satisfaction and subsequently turnover through the mechanism of met expectations is naive. Certainly, the conditions under which the met expectation effects occur are limited. One should not be hoodwinked into believing that perhaps RJP's can overcome and compensate for major deficiencies in the immediate job environment. This is not to deny the value of such RJP's; it only stresses the need to know the conditions under which they are likely to be useful (p. 19).

Role of Met Expectations in Organizational Entry

The role of met expectations in the assimilation of new members into organizations has been studied in experimental, longitudinal survey, and cross-sectional survey studies. (See Horner, 1979, for a detailed analysis of these

studies.) Based on a review of these studies (Horner, 1979), there appears to be limited support for the impact of met expectations on turnover among newcomers to a job situation. Generalizing across studies is difficult. Met expectations were measured in several different ways across varying time periods.

Summary

All of the field studies that measured met expectations measured role outcome (EII, performance-outcome type expectations). Although both positive and negative outcomes were included, the valence attached to each outcome was not measured. If the individuals have some expectations met but some remain unmet, the desirability of the outcomes may determine the significance of the met/unmet expectations. For instance, if pay expectations were not met, the employee may still remain because other expectations of desirable outcomes may have been met or exceeded.

None of the studies measured initial expectations in terms of a probability. It may be easier to think of met expectations in terms of some level of an outcome expected and the actual amount received. However, varying levels of some outcomes are possible and the individual may attach a different combination of valences and probabilities for each level (see Dachler & Mobley, 1973).

(See Horner, 1979, for a detailed analysis of expectancy measures.)

III.

MODEL AND RELATED HYPOTHESES OF THE PROCESS BY WHICH RJP'S REDUCE TURNOVER

In this section a simplified model of the process by which RJP's operate to influence turnover is presented. The model attempts to integrate the organizational entry, organizational socialization, and met expectation literatures and identifies several of the mechanisms by which RJP's may influence the newcomer's affective, intentional, and behavioral responses toward the organization. The model and related hypotheses are presented in two sections, starting with the results produced by the RJP and working back through the explanatory mechanisms to the inputs of the RJP. Then the complete model is presented and briefly summarized. The model and hypotheses suggested by it are discussed at the group and individual levels of analysis.

Effect of the RJP on Withdrawal

The first portion of the model is presented in Figure 3. This section of the model is based on the research of Mobley (1977) and Mobley et al. (1978). Mobley (1977) suggested that there are a variety of cognitive and behavioral processes occurring between job dissatisfaction

and turnover. The model presented in Figure 3 is a shortened version of the model tested by Mobley et al. (1978). Age and tenure have been excluded in the present model because the subjects included in this study are similar with respect to age and tenure. The model in Figure 3 also excludes intention to search for another job. The subjects in the present study were in a situation where active search for alternative employment was quite difficult.

In line with the research mentioned above, the model in Figure 3 shows intention to leave (Cell 2) to be the most immediate precursor of turnover (Cell 1). Job dissatisfaction (Cell 5) produces thoughts of leaving (Cell 4) which lead to intention to leave (Cell 2). The influence of thoughts of leaving on intention to leave is moderated by the perceived availability of acceptable alternatives (Cell 3). Notice in Figure 3 that the influence of the RJP (Cell 12) on job satisfaction (Cell 5) is shown with a broken line. The mechanisms by which RJP's lead to the precursors of turnover are presented in the second part of the model. The following group level hypotheses are based on that portion of the model shown in Figure 3.

Turnover

- Hypothesis 1: Groups receiving the RJP have a lower attrition rate than the control groups.

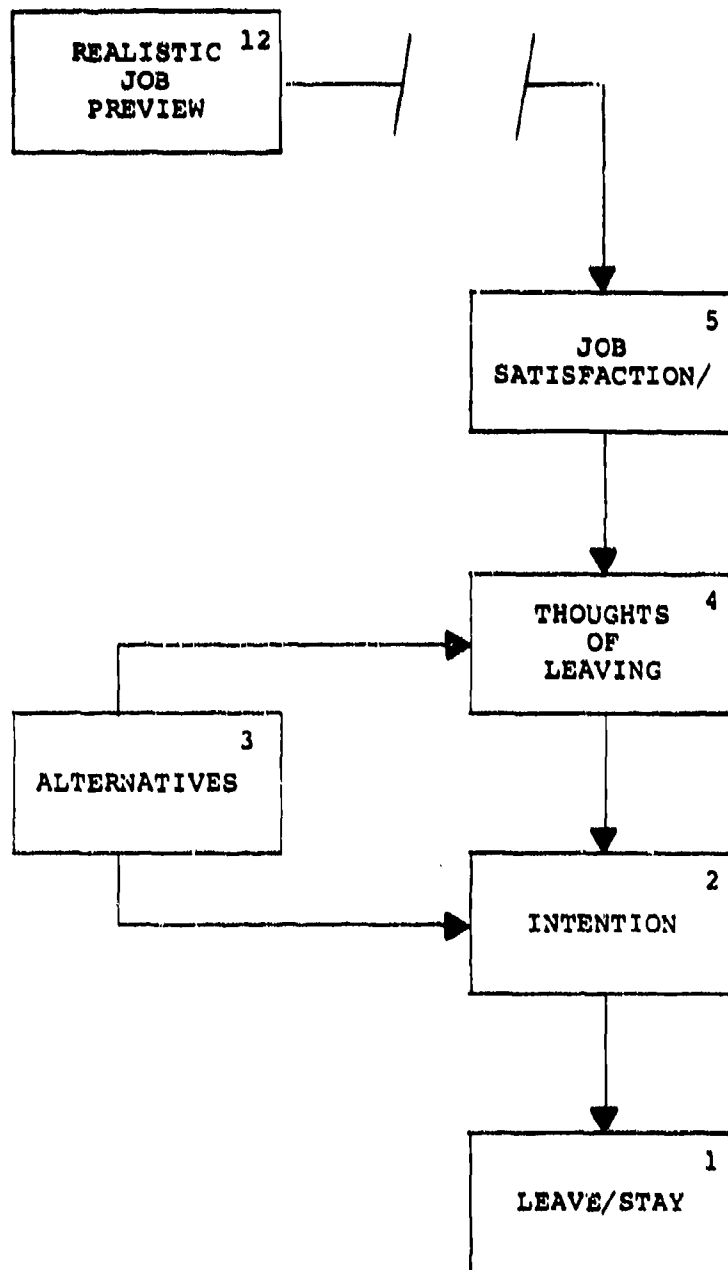


Figure . Effect of RJP on the withdrawal decision.

This hypothesis is supported by the findings of several field studies of RJP's and turnover reviewed in the first chapter (see Tables 1 and 2). Although turnover is often considered to be a rather clearly observable criterion, there are problems in operationalizing the term (see Bluedorn, 1978; Mobley, Griffeth, Hand, & Meglino, 1979). Most studies consider voluntary versus involuntary turnover. The distinction is based on who initiates the action. Turnover in this study included all who left the organization after they had been cleared for acceptance by the organization. This excluded from the sample those who were rejected for fraudulent enlistment and medical problems that were diagnosed shortly after entry. Several sub-analyses attempted to isolate "voluntary" turnover via a self-report questionnaire among terminators.

Precursors to Turnover

The next hypotheses are based on the research of Mobley (1977) and Mobley et al. (1978). The possible moderating effects of alternatives will be discussed at the individual level of analysis.

Hypothesis 2: Groups receiving the RJP report lower intention to quit than the control groups.

Hypothesis 3: Groups receiving the RJP report fewer thoughts of quitting than the control groups.

Wanous (1973) conducted the only RJP study that

considered any of the precursors of turnover other than job satisfaction. He found significantly fewer thoughts of quitting for the RJP group, but there was no significant difference in turnover. As Wanous (1973) suggested, this may have been caused by the lack of acceptable alternatives due to the high rate of unemployment in the labor area.

Hypothesis 4: Groups receiving the RJP report higher job satisfaction than the control groups.

Wanous (1973) and Youngberg (1963) found support for this hypothesis. Since both of these studies gave the RJP before job acceptance, the results may have been due to self-selection. Ilgen and Dugoni (Note 3) gave the RJP after entry but found no support for this hypothesis.

Porter, Steers, Mowday, & Boulian (1974) found that organizational commitment was a better predictor of turnover than job satisfaction. Organizational commitment is the strength of an individual's identification with and involvement in a particular organization (Porter et al. 1974).

None of the RJP studies measured organizational commitment. The organizational socialization literature identified commitment as an important outcome of the socialization process (see Feldman, 1976). A cross-sectional study (Buchanan, 1974) found organizational commitment to be related to reality shock and expectations realization

for the more tenured employees.

Recruits in the present study may have become more committed to the organization due to the possible enhancement of feelings and trust in the organization produced by the RJP. It may also be that individuals who have their expectations met as they progress through an organization are more likely to be committed to that organization.

Hypothesis 5: The RJP group is more committed to the organization than the control groups.

Intermediate Links Between RJP's and Precursors

The intermediate links or explanatory mechanisms by which RJP's are hypothesized to influence turnover and precursors to turnover are presented in Figure 4. The RJP (Cell 12) is predicted to influence turnover and precursors to turnover (Cell 5) through four primary mechanisms: met expectations (Cell 6), ambiguity reduction and modeling (Cell 9), change in values (Cell 10), and feelings of trust and honesty toward the organization (Cell 11).

Ambiguity Reduction/Modeling

The RJP used in the present study was designed to

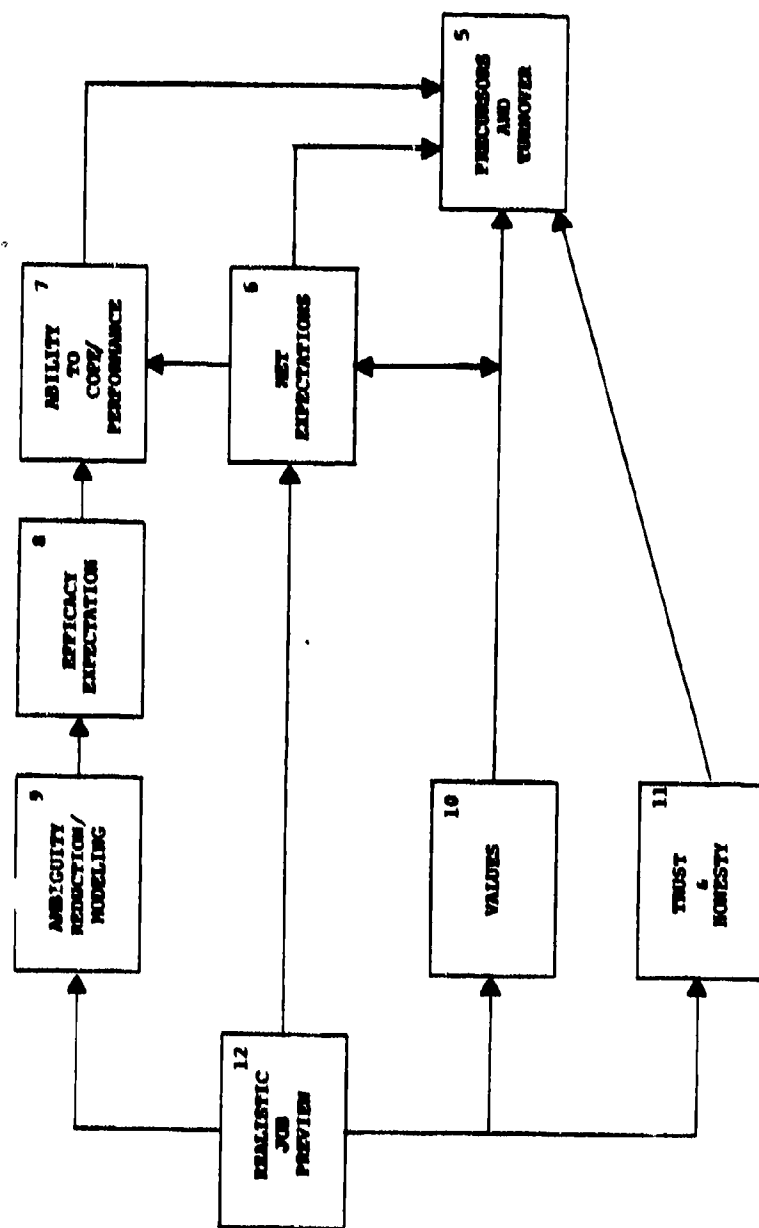


Figure 4. Intermediate links between RJP's and precursors of turnover.

reduce the newcomers' perceived ambiguity (Cell 9). Leader and organizational role expectations were clarified. Graen (1977) discussed the importance of role ambiguity and leadership expectations in assimilating new members into organizations. Graen et al. (1973) called for new role sending mechanisms to let new employees know what is expected in order to reduce role ambiguity. They suggested that the assimilation process is very inefficient and ineffective unless the new employees are ready to assume the new role and know the requirements of that role.

Hypothesis 6: Groups receiving the RJP perceive less job ambiguity than the control groups.

Bandura (1977) showed how expectations created by the process of modeling could help prepare persons to better deal with difficult situations. Modeling refers to vicarious learning gained by observing a role model perform certain tasks. The RJP used in the present study was designed to teach new recruits how to deal with difficult situations they would experience on the job. The newcomers viewed role models undergoing situations similar to what they were about to experience. Bandura (1977) suggested that the modeling process could enhance the belief that one can successfully execute the behavior required to produce certain outcomes. He referred to this belief as efficacy expectations (Cell 8). According to Bandura (1977) efficacy expectations determine if coping behavior

will be initiated, how much effort will be expended, and how long it will be sustained in the face of aversive experiences. Bandura (1977) suggested that: "Seeing others perform threatening activities without aversive consequences can generate expectations in observers that they too will improve if they intensify and persist in their efforts" (p. 197). Bandura (1977) explained that modeling could lead to a serviceable coping skill that would enhance efficacy expectations and lead to improved ability to cope with stressful situations. Newcomers entering organizations are in stressful situations (Van Maanen, 1975). Ability to cope was measured by asking participants how well or how poorly they handled certain stressful events in their job. This measure deals with the *direct action coping* mode as compared to the *intraphysic* or cognitive coping mode (Lazarus, Averill, & Option, 1974). The direct action mode deals with the acquisition of interpersonal skills and the accompanying manipulation of the environment (Meichenbaum, Turk, & Burstein, 1975). Wanous (1977) suggested that realism lowers expectations to a level more congruent with organizational climate. The result is that newcomers are "innoculated" (McGuire, 1964) against the unpleasant aspects of the new environment and experience less reality shock. As a result, they are better able to handle the difficult situations encountered on the new job. Persons who have an accurate picture of what to expect,

may have mentally rehearsed what they will do in order to deal with certain situations. These newcomers have successfully completed the anticipatory socialization process (Feldman, 1976). The next two hypotheses were based on the above discussion.

Hypothesis 7: Groups receiving the RJP report greater efficacy expectations than the control groups.

Hypothesis 8: Groups receiving the RJP report greater ability to cope with difficult aspects of the job than the control groups.

Performance

Actual job performance is another measure of how well individuals have coped with difficult aspects of their job. Several researchers have studied the impact of RJP's on job performance (Gomersall & Myers, 1966; Wanous, 1973; Youngberg, 1963). Only Gomersall and Myers (1966) found the RJP to enhance performance. Wanous (1978) suggested that the other studies did not find any impact on performance because the RJP's were related more to organizational (macro) factors rather than job specific (micro) factors.

A recent laboratory study of a simulated organizational entry found that realistic task expectations had no influence on performance (Parkington & Schneider, Note 6). Vidacek and Wishner (1971) found that accurate expectations regarding the duration of muscular efforts lead to superior organization of muscular activity. Other

laboratory studies have shown that accurate expectations regarding the occurrence of noise can improve task performance (see Finkelstein & Glass, 1970).

Since the RJP used in this study deals with many specific tasks involved on the job, it may have had some influence on performance. It seems logical that realism may have an impact on both motivation and ability (Wanous, 1978). It may influence ability through the modeling process and motivation through the process of reducing role ambiguity and goal clarification (see Locke, 1978). Based on this discussion, the following hypothesis seems to be warranted.

Hypothesis 9: The RJP group has a higher level of performance than the control groups.

Values

As discussed earlier, another possible mechanism by which realistic expectations may lead to reduced propensity to withdraw is through their effect on values (Cell 10). Locke (1977) suggested that expectations could affect the operation of individuals' values or wants. He suggested that an event which is highly valued and expected but does not occur, may be more disvalued than if it had not been expected in the first place. This is due to the heightened contrast between the anticipated success

and the failure which results. Locke (1976) suggested that people frequently cope with this situation by convincing themselves that the value being sought is not as important as it was originally. Ilgen and Dugoni (Note 3) suggested that the influence of expectations through RJP's is important because expectations may, in some situations, alter the new employee's value state.

Hypothesis 10: Groups receiving the RJP experience a greater change in their values than the control groups.

Trust and Honesty

Feelings of trust and honesty (Cell 11) have been suggested as a possible mechanism whereby RJP's lead to reduced propensity to withdraw. Wanous (1977) suggested that realism before joining the organization offers the applicant a greater degree of freedom in organizational choice. If so, dissonance theory predicts greater commitment to the decision. However, the air of honesty conveyed to the applicant after entry may also cause the newcomer to be more favorably disposed toward the organization. The act of supplying newcomers with coping skills and showing them what to expect may convey a climate of caring for the individual. Ilgen and Dugoni (Note 3) found no support for this hypothesis. It is also possible that the RJP may reduce the group's feeling of trust and honesty

in the organization. The newcomers may feel slighted because the RJP was not given prior to job acceptance. However, the position taken here is that newcomers are in an ambiguous and stressful situation. Efforts to reduce the ambiguity will be viewed as a welcome relief regardless of when the information is received.

Hypothesis 11: Groups receiving the RJP have greater feelings of trust and honesty toward the organization.

Individual Level of Analysis

Met Expectations

Met expectations were previously defined as "the discrepancy between what a person encounters on the job in the way of positive and negative experiences and what he expected to encounter" (Porter & Steers, p. 152). The hypotheses related to the effects of met expectations on propensity to withdraw are discussed at the individual level of analysis.

According to the reviews of Porter and Steers (1973) and Wanous (1977) "met expectations" was the major mechanism by which RJP's were hypothesized to lead to reduced turnover. Both reviews assumed that the RJP created more realistic expectations for the treatment group and that the

control groups had unrealistic expectations. However, some individuals in the control group and in the RJP group may have entered with realistic expectations. It is also possible that the RJP did not produce the intended effect. If the explanatory mechanism is "met expectations," then the degree to which each newcomer's expectations were met should be measured and related to the criterion. There is no need to assume that all individuals enter the organization with unrealistic expectations and the the RJP creates more realistic expectations for all in the treatment group. The degree of met expectations should be measured for each person (see Wanous, 1978, for a discussion).

Dimensions of expectations. As noted earlier several dimensions relevant to the study of met expectations have been identified. Porter and Steers (1973) noted the importance of considering both positive and negative experiences. In other words, the direction of the discrepancy--toward or away from a valued end--is an important dimension of met expectation. The direction of the discrepancy from expectations and experiences are referred to as values (Cell 10) in Figure 4. Actually this is a measure of valence (anticipated satisfaction). Value refers to experienced satisfaction (see Dachler & Mobley, 1973 for a discussion). The term values are used here to be consistent with the RJP literature.

Laboratory studies found that not only the direction of the discrepancy but also the magnitude of the discrepancy between expectations and perceptions was a relevant dimension of expectations (see Ilgen, 1971; Scontrino, 1972). Wanous (1978) suggested that micro (job) and macro (organizational) met expectations should be considered separately when studying RJP's.

In order to assess the importance of the various dimensions of met expectations, eight expectations sets were computed. The first set included the absolute magnitude of the discrepancy between expectations and perceptions. This does not allow expectations which may have been exceeded to cancel out those outcomes which fell short of expectations. Next the discrepancies were allowed to take on a signed magnitude that permitted positive (more) and negative (less) to cancel out when the discrepancies were summed. The third expectation set included only those outcomes that were less than expected and the fourth included only those that were exceeded for each individual. The remaining four sets were formed by weighting each of the above by values or desirabilities. Each expectation set was tested for its correlation with the criteria as shown in Figure 4. Once the above level of analysis was conducted, the expectation sets were divided into micro and macro sets. Each of the following hypotheses

were tested with correlational analyses for each of the expectation sets described above. Since the discussion concerning the group level of analysis is relevant to the hypotheses concerning met expectations, the discussion will not be repeated here. However, additional comments and clarification are inserted.

- Hypothesis 12: Met expectations are inversely related to turnover.
- Hypothesis 13: Met expectations are inversely related to intentions to leave.
- Hypothesis 14: Met expectations are inversely related to thoughts of leaving.
- Hypothesis 15: Met expectations are directly related to job satisfaction.
- Hypothesis 16: Met expectations are directly related to organizational commitment.

Relationship of Met Expectations to Other Mechanisms

From the model shown in Figure 4, met expectations were connected with ability to cope and performance (Cell 9), values (Cell 10), and trust and honesty (Cell 11). The discussion relevant to these hypothesis was presented at the group level and will not be repeated here. The interaction of met expectations and values was tested by weighting the met expectation sets (as previously described) by the desirability of each outcome.

- Hypothesis 17: Met expectations are directly related to ability to cope.
- Hypothesis 18: Met expectations are directly related to job performance.
- Hypothesis 19: Met expectations are directly related to feelings of trust and honesty toward the organization.
- Hypothesis 20: The correlation between met expectations and the variables mentioned above (Hypotheses 12-19) will be higher when weighed by values.

Probability of Finding an Acceptable Alternative

Mobley's (1977) model included the chance of finding an acceptable alternative as a correlate of thoughts of quitting and intentions to quit (also see Schneider, 1976). Some newcomers may have thoughts of leaving but no intention to leave because there is no job alternative. Dansereau, Cashman, and Graen (1974) found that expectancy of finding an acceptable alternative moderated the correlation between attitude and termination.

- Hypothesis 21: The probability of finding an acceptable alternative moderates the influence of thoughts of quitting on intention to quit.

Simplified RJP-Turnover
Mechanisms Model

The complete model upon which the preceding hypotheses were based is presented in Figure 5. As shown in this model, the RJP (Cell 12) may differentially influence newcomers depending upon their entry expectations (Cell 13) and individual differences (Cell 14). The dotted arrow connecting these cells indicates the possible interaction between these variables. Entry expectations are actually a form of individual differences. The direct consequences of the RJP were predicted to be enhanced met expectations (Cell 6), a change in values (Cell 10), an increase in feelings of trust and honesty toward the organization (Cell 11), and a reduction in job ambiguity (Cell 9) through the process of realistic information and modeling. Ambiguity reduction and modeling were predicted to lead to greater efficacy expectations (Cell 8) which were hypothesized to produce improved performance and ability to cope (Cell 7) with difficult aspects of the new job.

The above mechanisms were hypothesized to explain why individuals in the RJP group should have a lower turnover rate and less propensity to withdraw than the control groups.

Met expectations were discussed at the individual level. Magnitude and direction were included in each

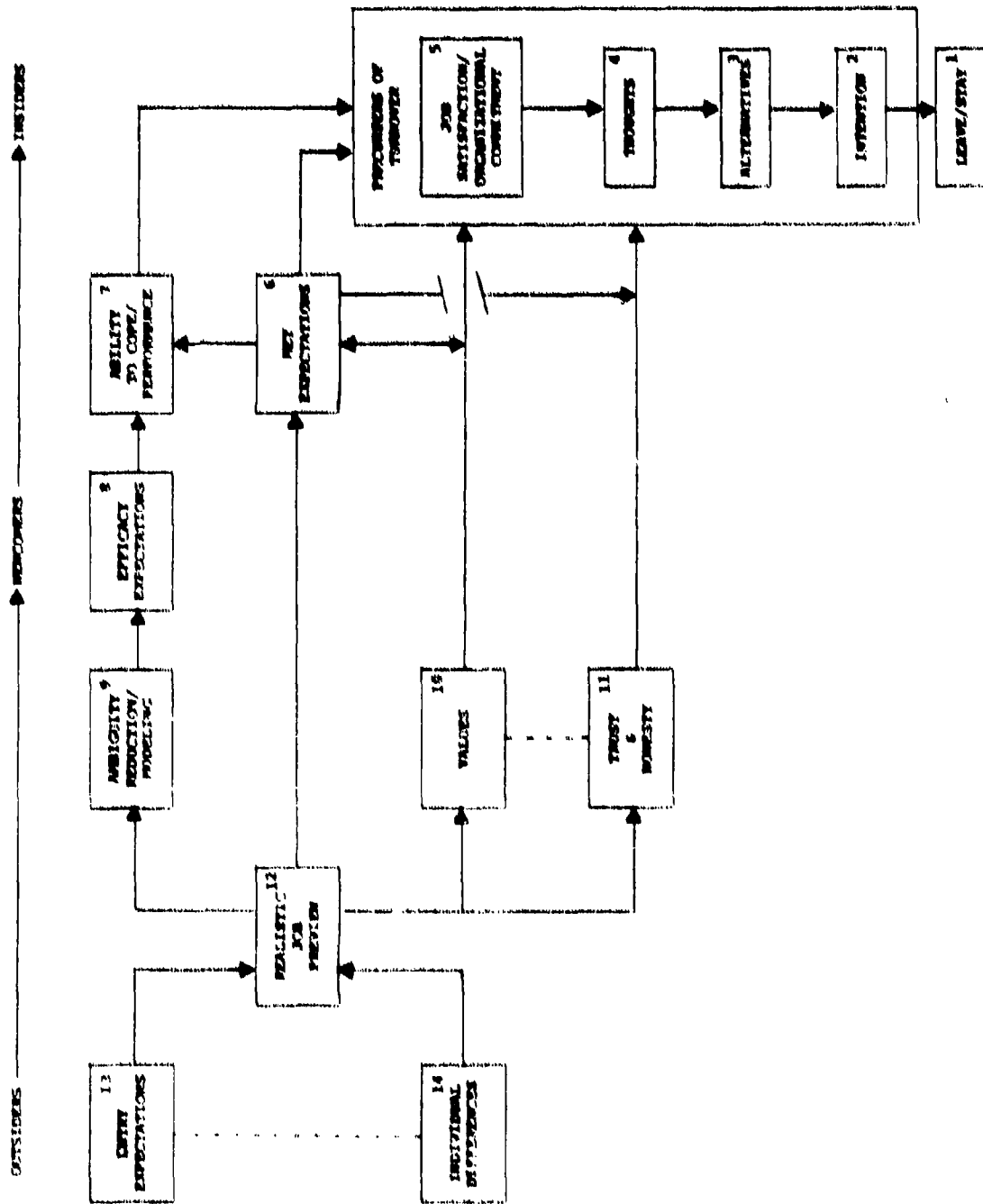


Figure 2. Simplified model of job-turnover mechanism.

individual's expectation set. Micro and macro outcomes were suggested as a further refinement of the expectation sets. It was suggested that each set should be weighted by the value or desirability attached to each outcome. Met expectations were hypothesized to be inversely related to turnover (Cell 1), negatively related to intentions (Cell 2) and thoughts (Cell 4), and positively related to satisfaction and commitment (Cell 5). In the next section, the methodology used to test the model in Figure 5 is presented.

IV. METHOD

Setting and Participants

This study was conducted at the Marine Corps Recruit Depot (MCRD) at Parris Island, South Carolina. The depot is one of two basic training bases for incoming Marine Corps enlistees. The study was part of a longitudinal study of first term attrition in the Marine Corps directed by Dr. W. H. Mobley. The two treatment films in the present study were shown in classrooms. The questionnaires were administered in classrooms and in the recruits' barracks.

A total number of 678 enlisted male recruits participated in the study. This did not include 43 recruits who were dropped from the organization due to fraudulent or erroneous entry. All participants were assigned to platoons in the usual MCRD manner. The platoon was the basic training unit and was used as the unit for assignment to experimental conditions. Once the data for starting the study was established, all incoming recruits were included in the experiment--with the exception mentioned

above--until 12 platoons had been filled.

The usual MCRD assignment to platoons is based upon arrival times. Recruits arrive at Parris Island in an essentially random manner from all parts of the Eastern United States. The size of each platoon was determined from an estimate of the number of arrivals for each week. As the recruits arrive at the depot, they are assigned to the current platoon being filled at that time.

The first few days at the depot are spent processing the new recruits. Once the platoon has been processed and filled, it is delivered to the Drill Instructors (DI's). The DI's give basic instruction to the new recruits which prepares them for the start of training. This period is referred to as the "forming" process and lasts from a few days to a week. The length of the forming period depends in part on how long it takes to fill four platoons. Four platoons comprise a series, the basic unit for scheduling training. Each series is assigned to one of three training battalions. At the time of the study, the training period lasted 11 weeks.

Each platoon has three DI's and a Senior DI. The leaders are assigned to platoons based upon a predetermined schedule. Since the actual date for starting the study was known only a few days in advance, the leaders for the experimental groups were already established before the experimental platoons were identified.

Treatment

The 80-minute color video RJP film was produced by the Training and Support Center (TSC) at Parris Island in close cooperation with the Center for Management and Organizational Research, College of Business Administration, University of South Carolina (USC). Content for the RJP film and many of the questions included in the measures were based on observations of the training by the USC research team and on extensive interviews with recruits, DI's, and other Marine Corps personnel.

Interviews with over 300 individuals were conducted by the USC research team. Approximately half of the interviews were conducted on the actual training site with small groups of recruits and DI's. Many of these interviews were recorded on audio tape. The remainder of the interviews were conducted in closed offices in the barracks. Recruits who had just entered the receiving depot, as well as recruits getting ready to graduate and at many points between those times were interviewed and tape recorded. Each interviewee was asked to sign a consent form and the purpose of the interview was explained. Only the researcher, the interviewee, and a tape recorder technician from TSC were in the room. The recruits were guaranteed confidentiality.

The interviews were semi-structured. Most questions centered around what the recruit expected prior to joining the organization and how it was like or different from his present perceptions. They were also asked to relate any advice they would like to give to new recruits to help them through the training. These taped comments were used as voice overs in the RJP film. The same procedure was followed in interviewing DI's.

Interviews were conducted with poor, average, and good performers. Some who had dropped out were also interviewed. Most of those interviewed were selected from a roster of the recruits in the chosen platoon. Interviews with the DI's were held at the convenience of the DI's. Their busy schedules did not permit the researchers to pick the ones to be interviewed.

The RJP film was based primarily on information gained from these interviews. Those areas that the recruits said they wished someone had told them about early in their training were included. Recruits were shown going through some of the training that was perceived to be the greatest cause of concern among recruits. Voices of the recruits and their instructors were played over the picture. The voices explained how the recruit should react to certain situations and the voices gave advice on how to cope with the training.

The film started with the recruits arrival at Parris Island. The first few days of processing was shown. The participants in the study had already experienced most of the processing but it was hoped that if they were shown a realistic picture of what they had already experienced, they would be more likely to accept the rest of the film as being realistic. Since the main thrust of the study was to reduce early attrition, the first three weeks of events were shown in more detail than the later weeks of training. The film included many of the details of daily life, from the time the recruit first got up in the morning until he went to bed at night. All major events in training were covered. A special section was devoted to showing how the DI was trained and how DI's viewed recruits. The DI's told how they wanted new recruits to act. They advised the recruits on how to cope with their DI's.

The role models chosen for the film were not pre-selected for voice or appearance. Most of the scenes were shot as the recruits were actually undergoing the training. The good as well as the average and poor performers were depicted in the film. The idea was to show each recruit a successful role model with which to identify. If only the best performers were shown, it may have been hard for the incoming recruits to identify with the role model.

The film also related factual information concerning such things as average improvement scores on the physical training tests, the number who fail academic tests, that all recruits will not graduate, etc.

Design and Procedures

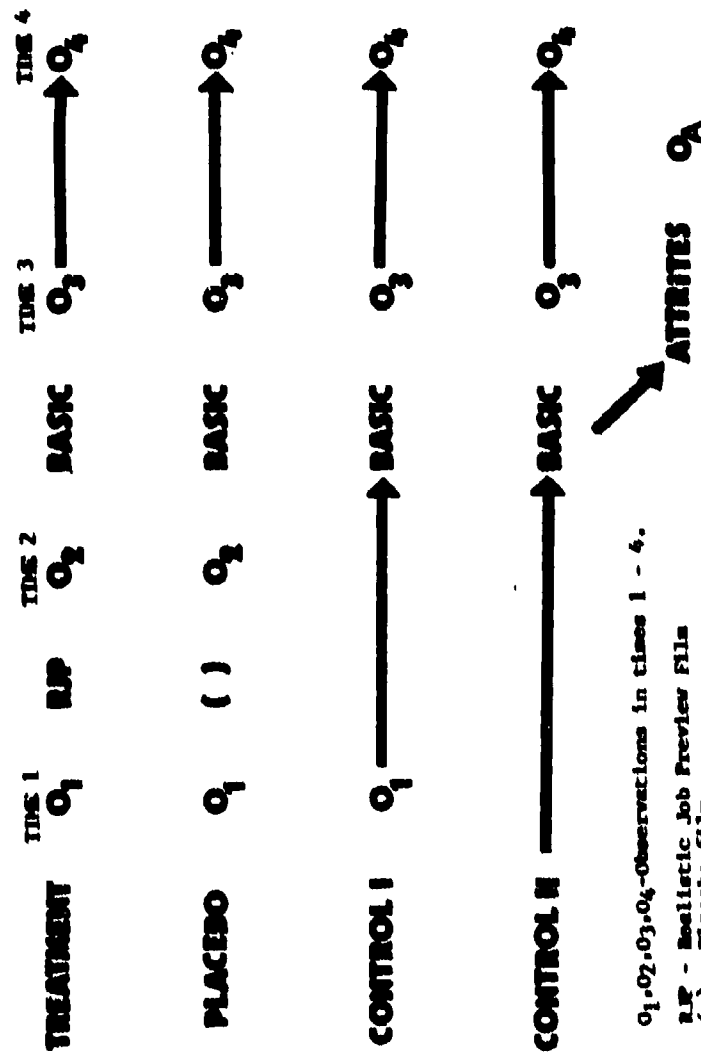
The experimental design (see Figure 6) called for one platoon in each series to serve as a treatment, placebo, or control group. This design was replicated for each of the three training battalions.

The first questionnaire (O_1) was administered to the first three platoons of each series on the morning of their second day at Parris Island. This was done to ensure that the recruits had at least one full night of sleep before taking the questionnaire. The recruits were assembled by platoons in classrooms in the receiving center. After the questionnaires and answer sheets were distributed the researchers read the instructions which are shown in Appendix A. Recruits were assured that their answers would be kept confidential and that their participation was voluntary. The O_1 questionnaire was 18 pages long and took an average of 75 minutes to complete.

After the survey was completed, the first two platoons of each series were marched to a classroom building.

EXPERIMENTAL DESIGN

PIRATE



O_1, O_2, O_3, O_4 - Observations in times 1 - 4.

BASIC - Realistic Job Preview Film

() - Placebo film

Figure 6. PIRATE (Parris Island Recruit Assimilation Exercise) design.

One platoon was then designated at random as either the treatment or placebo group. Both platoons were seated in separate but similar classrooms. The rooms contained closed circuit color TV monitors. The groups were read an introduction by the researcher. The treatment group saw the 80-minute color video tape of what recruit training is really like. The placebo group saw a series of three traditional Marine Corps films. The traditional recruiting films were in color and lasted approximately 82 minutes. Both groups received a 10-minute break during the presentation. The breaks were staggered so that the two groups could not interact with each other.

After the presentations were completed, the platoons returned to the receiving area where they continued to be processed. The platoons were kept separated while being processed. That same afternoon the treatment and placebo groups returned to the classrooms in the receiving area and were administered the second questionnaire (O_2). This questionnaire was identical to the O_1 measure. The same directions were read as before. The mean completion time was approximately 65 minutes. The platoons were delivered to their DI's a few days after taking the second questionnaire. Notice from the design in Figure 6 that the first control group (Control I) did not take the second questionnaire.

After three weeks of training, all platoons were administered the third questionnaire (O_3). This questionnaire was similar to the previous questionnaires except the recruits were directed to answer in terms of what training is like now. During the last week of training, the fourth questionnaire (O_4) was administered to each group. This questionnaire was identical to O_3 .

An attempt was made to administer an attrition questionnaire (O_A) measure to each recruit who was dropped from training. The questionnaire for the separations was similar to the O_3 and O_4 measures except it included a section on reasons for terminating. This survey was administered by the Marine Corps staff.

Sub-analysis

The design, as shown in Figure 6, was not able to control for the interaction between the pretest and the treatment. No group saw the RJP film without taking the O_1 measure. To overcome this deficiency, a sub-analysis was conducted. A group of 72 male enlistees who were undergoing the receiving process were participants in the mini-experiment. The recruits had been assigned to two platoons. For purposes of this experiment, the recruits were randomly assigned to one of two groups by assigning all with social security numbers ending in even numbers in one group

and the odd ending social security numbers to the other group. The groups were kept separate throughout the day of the experiment.

One group ($n = 37$) took the O_1 measure. At the same time, the other group ($n = 35$) took a bogus questionnaire. This questionnaire was approximately the same length as the regular questionnaire but the questions did not relate to the organization. Both groups saw the RJP film at the same time. That afternoon, both received the O_2 measure. The same procedures were followed for these groups as were followed in the major experiment. The results of the mini-experiment are reported in the next section.

Measures

Measures of turnover and demographic variables were obtained from the Recruit Accessions Management System (RAMS) computer file furnished by the organization. Performance measures were obtained from the personnel folders of each recruit. The attitudinal data were obtained from questionnaires. All questionnaire items were based on a five point Likert type scale (Horner, 1979). The responses were recorded by the respondents on computer score

forms. Two forms of the questionnaire were used. The first form asked the participants to respond in terms of what they expected their new job would be like. The second form contained the same questions but the present tense was used in the directions and in the questions for certain items.

Criteria Measures

Turnover. The data on turnover were obtained from the RAMS computer file. Recruits who were separated involuntarily by the organization for fraudulent enlistment or medical problems detected after entry were not included in the present study. All other newcomers who were accepted by the organization and withdrew for any reason were considered as separations. "Voluntary" turnover was measured with a self-report item in the separation survey (see Horner, 1979).

Intentions. Intentions to leave the organization before finishing training were assessed. This question was based on the Mobley et al. (Note 5) study.

Thoughts of leaving. Thoughts of leaving the organization prior to completing first term enlistment were measured by a single item based on the Mobley et al. (Note 5) study.

Alternatives. The probability of finding an acceptable alternative to employment in the organization was measured with a single item (Mobley, et al., Note 5).

Job satisfaction. Job satisfaction was measured by the Minnesota Satisfaction Questionnaire (MSQ) Short Form (Weiss et al., 1967). This scale includes a measure of satisfaction with extrinsic and intrinsic job factors as well as a sum score for overall satisfaction. Several RJP studies used this same scale (Ilgen & Dugoni, Note 3; Wanous, 1973).

Organizational commitment. Organizational commitment was measured by the Organizational Commitment Questionnaire (Porter, Steers, & Mowday, 1974). This 15-item questionnaire contains responses on a 7-point Likert scale. The responses were reduced to five in the present study. The reliability and validity of the commitment scale have been thoroughly investigated (Mowday, Steers, & Porter, 1978). (See Horner, 1979, for actual measures.)

Mechanisms

The mechanisms or process by which the RJP and met expectations were predicted to lead to certain outcomes were obtained from the following items.

Job performance. Two measures of job performance were used. The Military Skills Marks (MSM) score is a composite score based on graded evaluations of certain military skills. The scores were hand coded from the participant's personnel folders by the researchers. The number of recruits recycled was the second measure of performance. Recruits who do not perform up to standard are recycled.

Ambiguity. This scale was designed to measure the individual's perceived role clarity. The scale was developed by Kahn et al. (1964).

Efficacy expectations. This scale was based on interviews with recruits and their leaders. The items included were the ones most frequently described as being difficult for recruits to handle. Efficacy expectations were measured by asking newcomers how well they expected to handle these difficult job situations

Ability to cope. On the second form of the questionnaire the participants were asked how well they handled the difficult situations.

Trust and honesty. Feelings of trust and honesty in the organization were measured with two items that assessed the extent to which the recruits felt the organization was honest in its dealings with and cared what happens to its employees.

Outcome expectations. The items included in the measurement of expected and perceived outcomes were based on the findings of a previous study of the same organization (Mobley et al., Note 5). There were 11 micro (job) related questions and 6 macro (organizational) items.

Outcome desirabilities. The extent to which each of the micro and macro outcomes were desired (valued) were also measured.

Expected job difficulty. Expectations regarding the difficulty of certain events and outcome associated with recruit training assessed. These items were identified from interviews with recruits and DI's.

Expected leadership style. Met expectations regarding leadership style were measured by the Leader Behavior Description Questionnaire (LBDQ) (Stogdill & Coons, 1957). This scale measures two dimensions of leadership style. Leader consideration is the extent to which leader-follower relations are characterized by mutual trust, respect, and consideration. Initiating structure is the extent to which the leader defines the goals and roles for subordinates, is active in planning, scheduling, and criticizing. In the present study the scale items were arranged in order by the type of response being requested.

This was done to make the scale easier and quicker to read.

Co-workers. Expectations and perceptions of sociometric attraction and proficiency of co-workers or group members were measured. These measures were based on the study conducted by Mobley et al. (Note 5). Attraction referred to the attractiveness of the group for its members. Proficiency was the evaluation of confidence in group performance.

V, RESULTS AND DISCUSSION

This chapter is divided into: a discussion of the generalizability of the experimental sample, evaluation of scale reliabilities, presentation of results concerning the possible interaction of testing with the treatment, discussion of the results concerning the manipulation check, discussion of the results of each hypothesis, and a discussion concerning the moderating effects of individual differences. The latter was empirically investigated without apriori hypotheses due to the paucity of research concerning the possible relations between the individual moderators and the variables of interest.

It should be noted from the start that the sample sizes for the analyses vary. Recall from the experimental design (Figure 6) that not all groups took all questionnaires. Consistency checks involving repetition of the same or similar questions were used. Questionnaires not meeting an apriori, acceptable consistency level were omitted from the analyses. Failure to take a certain questionnaire due to attrition, absenteeism, or refusal to take the voluntary surveys, also affected the sample size.

In general, 70 percent of the sample to be surveyed returned usable questionnaires for each survey administration.

Experimental Sample

The representativeness of the experimental sample was assessed by comparing the sample to the total number of male enlisted recruits who entered Parris Island during the later part of 1977 through mid-1978. Age, race, years of education, graduation from high school, and scores on the Armed Forces Qualification Test (AFQT) were employed to compare the sample to the population.

As shown in Table 4, no significant differences were found for age, race, or AFQT. However, the experimental sample had significantly fewer years of education (11.33) than the population (11.65). The experimental sample also had significantly fewer high school graduates (56.2% as compared to the population (75.5%). These differences were no surprise. The experimental samples were selected in April, a time when arrivals traditionally had lower education levels than at other times of the year. April was chosen due to the relatively small number of new arrivals. This ensured that the experiment would not delay the start of training for the experimental groups.

Table 4

Demographic Comparisons Between Parris Island^a
Experimental Sample and All Male Enlisted
Parris Island Accessions During Latter
Half of 1977 and First Half of 1978

Variable	Experimental Sample ^b		Parris Island 1978 Accessions ^c		z
	M	SD	M	SD	
Age	20.63	1.91	20.67	1.79	-0.60
Years education	11.33	0.99	11.65	0.85	-9.97**
Mental (AFQT)	55.61	17.17	54.90	16.74	1.10
High School Graduates	56.2%		75.5%		-10.28**
Minority	30.8%		30.0%		0.08

^aRAMS File furnished by Headquarters, U.S. Marine Corps, Washington, D.C.,
October, 1978.

^b $\bar{n} = 678$.

^c $\bar{n} = 22,815$.

** $p < .01$.

Since assignment to groups was not a purely random process, groups in each of the experimental conditions were compared on the same variables mentioned above. As shown in Table 5, there were no significant differences between groups on any of the demographic variables as measured by a one-way analysis of variance (ANOVA). The groups were relatively homogeneous with respect to the demographic variables.

Reliability

Coefficient alpha (Cronback, 1951) was used to estimate the internal consistency of each scale. This measure assumes that the items of a scale are unidimensional. The reliability coefficients are presented in Table 6. All of the scales averaged over .60 for the four surveys.

The two individual difference measures--Self-Esteem Scale (Rosenberg, 1965) and the Need-for Clarity Index (Lyons, 1971) supposedly measured relatively stable personality characteristics. A correlation coefficient was used to measure the test-retest reliability of these two measures. The first and third surveys, given one month apart, showed test-retest reliabilities of .53 for the self-esteem measure and .35 for need for clarity.

Table 5
Demographic Comparisons Between Experimental Groups

Variable	Treatment		Placebo		Control I		Control II	
	M	SD	M	SD	M	SD	M	SD
Age ^a	20.68	1.87	20.61	1.95	20.73	2.03	20.49	1.81
Years education ^b	11.40	0.95	11.27	0.99	11.37	1.09	11.27	0.92
Mental (AFQT) ^c	55.98	16.63	55.13	17.84	58.04	16.56	53.26	17.41
High school graduates	62.6%		52.3%		57.2%		52.4%	
Minority	31.0%		32.8%		25.3%		34.1%	
<u>n</u>	174		174		166		164	

^aBartlett-Box $F = 0.812$; $p = .49$.

^bBartlett-Box $F = 1.732$; $p = .16$.

^cBartlett-Box $F = 0.272$; $p = .53$.

^dAll n.s. at .05, two-tailed test.

Table 6
Reliability Estimates: Coefficient Alpha

Scale	Survey			
	1	2	3	4
Job ambiguity	.52	.59	.69	.64
Organizational commitment	.84	.88	.87	.88
Leader consideration	.72	.72	.80	.79
Leader structure	.79	.78	.79	.86
Extrinsic satisfaction	.80	.79	.81	.83
Intrinsic satisfaction	.78	.81	.82	.89
General satisfaction	.89	.89	.91	.93
Self-esteem	.74	--	.78	--
Need for clarity	.92	--	.95	--
Feelings of trust and honesty	.51	.64	.75	.78
Organizational outcome expectations	.66	.70	.72	.72
Job related outcome expectations	.62	.67	.69	.74
Organizational outcome desirabilities	.75	.71	.79	.84
Job related outcome desirabilities	.70	.64	.64	.81
Efficacy expectations	.88	.91	--	--
Ability to cope	--	--	.86	.89

Pretest-Treatment Interaction

As previously mentioned, the experimental design (Figure 6) did not control for the possible reactive or interaction effect of the pretest with the treatment (Campbell & Stanley, 1964, pp. 6-7). In order to assess this possibility, the mini experiment described previously was conducted. The two randomly assigned groups were compared via t tests on 18 variables as measured by the posttest. Recall that one group took the pretest, while one group received a bogus pretest. Both saw the RJP and took the posttest.

As can be seen from Table 7, none of the tests showed any significant differences between the two groups on any of the 18 variables. Hotelling's T^2 (Hotelling, 1932) was used to determine if the two vectors of means were significantly different (see Bolch & Haung, 1974, for a discussion of T^2). There was no statistically significant difference between the two vectors of means. There was no indication that reactivity was a problem in the present study.

Table 7
Mini-Experiment Results: Pretest RJP Interaction

Variables	Group ^a	N	M ^c	SD	t ^d
Job outcome desirabilities	a	32	43.16	4.28	-0.44
	b	37	43.59	3.91	
Organizational outcome desirabilities	a	35	26.54	2.87	0.17
	b	37	26.43	2.65	
Job outcome expectations	a	35	9.02	1.76	-0.56
	b	37	9.26	1.78	
Organizational outcome expectations	a	35	3.95	0.70	0.02
	b	37	3.95	0.70	
Expected difficulty	a	36	43.39	7.70	-0.94
	b	35	45.00	6.70	
Efficacy expectations	a	37	3.58	0.65	0.36
	b	35	3.71	0.61	
Sociometric attraction	a	37	3.73	0.61	-0.04
	b	34	3.74	0.53	
Sociometric proficiency	a	37	3.95	0.52	0.59
	b	34	3.87	0.58	
Leader structure	a	37	65.27	9.01	0.77
	b	35	63.54	9.80	
Leader consideration	a	35	43.23	10.14	-0.40
	b	35	44.11	8.53	
General satisfaction	a	37	70.49	12.15	-0.59
	b	30	71.94	8.49	
Extrinsic satisfaction	a	37	23.32	4.11	-0.05
	b	35	23.37	3.63	
Intrinsic satisfaction	a	37	47.16	8.33	-0.85
	b	35	48.57	5.61	
Job ambiguity	a	36	3.24	0.72	0.31
	b	35	3.19	0.64	
Organizational commitment	a	37	3.78	0.57	0.58
	b	33	3.70	0.65	
Trust and honesty	a	37	3.68	0.87	-0.65
	b	35	3.81	0.93	
Intentions to quit	a	37	1.35	0.72	0.24
	b	35	1.31	0.58	
Thoughts of quitting	a	37	2.27	1.17	0.16
	b	35	2.23	1.00	

Note. Hotelling $T^2 = 15.048$, n.s. (see Dixon, 1973).

^aPretest, posttest group.

^bBoque pretest, RJP group.

^cMeans on posttest.

^dt test - all n.s. at .05, two-tailed test.

Manipulation Check

The purpose of the RJP was to portray as accurately as possible the facts concerning recruit training. In order to assess the impact of the film on the creation of realistic expectations within the treatment group, analysis of covariance was used. Since this same statistical procedure was used to test many of the hypotheses, it will be discussed at some length here.

When the pretest-posttest control group design or an extension of it is used, Huck and McLean (1975) suggested:

Since a covariance analysis can do everything that a gain score can do, but not vice versa, the covariance analysis is recommended for use in place of the repeated measures ANOVA (p. 517).

Analysis of covariance uses the pretest scores as the concomitant variable. The posttest score is then regressed on the pretest score (covariate) and a dummy code is used to identify the control and treatment groups (see Kerlinger and Pedhazur, 1975, pp. 265-278).

In the present study three analyses of covariance were performed in order to test for the treatment effect. In all of the covariance analyses the treatment groups were coded a one and the control groups received a code of zero. The equation for the first analysis involved regressing the first posttest and group code on the pretest (Equation 1).

$$O_{2_i} = O_{1_i} + \text{Group} \quad (1)$$

where: O_{1_i} = expectations of outcome i in time 1

O_{2_i} = expectations of outcome i in time 2

Group: treatment = 1, placebo = 0

This equation amounted to testing if there was a difference in expectations between the treatment and placebo groups while controlling for any initial differences. It was anticipated that the treatment groups would report a difference in expectations after seeing the RJP.

The second analysis of covariance was similar to the first except the second posttest, administered one month after the first, was used in place of the first posttest score (Equation 2).

$$O_{3_i} = O_{1_i} + \text{Group} \quad (2)$$

where: O_{3_i} = perceptions of outcome i in time 3

O_{1_i} = expectations of outcome i in time 1

Group: treatment = 1, controls = 0

This analysis measured the difference in perceptions between the treatment, the placebo, and first control groups while controlling for initial differences in entering expectations.

The third analyses of covariance was used to determine if there was a difference between the treatment and placebo groups with respect to the discrepancy between expectations in time two--after the RJP--and perceptions as measured one month later in time three, while controlling for possible initial differences on entering expectations (Equation 3).

$$(Q_{3_i} - Q_{2_i}) = Q_{1_i} + \text{Group} \quad (3)$$

where: Q_{3_i} = perceptions of outcome i at time 3
 Q_{2_i} = expectations of outcome i at time 2
 Q_{1_i} = expectations of outcome i at time 1
 Group: treatment = 1, controls = 0

If the RJP was successful in creating more realistic expectations for the treatment group, the discrepancy between times two and three for the treatment group should be smaller than this discrepancy for the placebo group.

For each of the three equations, the increase in the R^2 produced by the addition of the group variable in the equation was tested in the manner described by Kerlinger and Pedhazur (1973, pp. 159-160). A significant increase in the amount of variance explained attributable to the group variable indicated the effect due to treatment.

Results of the Manipulation Check

The results of the test for the creation of realistic expectations are presented in Table 8. None of the R^2 increases due to the group coded vector were significant for any of the equations.

As discussed by Kerlinger and Pedhazur (1973, pp. 267-268) and by Nie et al. (1975, pp. 381-383), analysis of covariance is based on the assumption of no significant interaction effect between the pretest and the group code. Many of these interactions were significant for the manipulation check. However, close analysis of the significant interaction showed that the effects were attributable to a small increase in explained variance. In this situation, violations of the assumption were not serious enough to warrant separate interpretations for each group.

Discussion of Manipulation Check

It is difficult to explain why the treatment effect did not show up in any of the measures. The film was based upon much research of the organization and of the job. One problem was that the variables measured were not easily quantifiable. Some of the more quantifiable expectations and perceptions such as pay were not included because the newcomers had already been briefed on some of these factors. Met expectations were

Table 8
Manipulation Check: Analyses
of Covariance

Variable	Equation ^a	Beta ^b Group	R ² Change	df	F ^c Change
Job outcome expectations	1	.0126	.0002	189	0.043
	2	.0080	.0001	260	0.008
	3	-.0132	.0002	165	0.030
Job difficulty	1	-.0028	.0000	187	0.004
	2	.0084	.0000	274	0.026
	3	-.0304	.0009	167	0.176
Task difficulty	1	.0204	.0004	193	0.233
	2	.0344	.0012	239	0.346
	3	.0484	.0023	239	0.699
Leader structure	1	.1046	.0109	171	2.772
	2	-.0373	.0014	251	0.453
	3	.0876	.0077	140	1.097
Leader consideration	1	.0483	.0023	171	0.648
	2	.0624	.0039	246	1.103
	3	.0550	.0030	143	0.439
Sociometric attraction	1	.0580	.0033	191	0.868
	2	.0187	.0034	274	0.099
	3	.0246	.0006	172	0.105
Sociometric proficiency	1	-.0008	.0000	196	0.000
	2	.0181	.0003	281	0.096
	3	.1152	.0125	181	2.380
Organizational outcome expectations	1	.0416	.0017	193	0.556
	2	.0375	.0014	275	0.478
	3	-.0180	.0003	172	2.145

$$^a(1) Q_{2_i} = Q_{1_i} + \text{Group}$$

$$(2) Q_{3_i} = Q_{1_i} + \text{Group}$$

$$(3) (Q_{3_i} - Q_{2_i}) = Q_{1_i} + \text{Group.}$$

^bGroup codes: treatment = 1, controls = 0.

^cAll n.s. at .05.

Table 9
Manipulation Check: Additional Statistics

Variable	Group ^a	Time 1 Entry Expectations		Time 2 Post entry Expectations		Time 3 or 4 ^b Perceptions	
		M	SD	M	SD	M	SD
Micro outcomes	1	8.85	1.39	8.87	1.40	8.74	1.36
	2	8.89	1.14	8.74	1.25	8.66	1.16
	3	9.03	1.16	--	--	8.87	1.04
Job difficulty	1	27.91	5.08	27.94	5.70	28.33	5.08
	2	26.71	4.49	26.85	4.87	27.89	4.23
	3	26.54	4.38	--	--	27.33	5.00
Task difficulty	1	11.03	2.30	11.24	2.19	11.35	2.16
	2	10.74	1.75	10.64	1.94	10.80	2.48
	3	10.90	2.07	--	--	11.30	2.58
Leader consideration	1	40.32	8.52	41.91	7.91	47.32	9.91
	2	40.05	8.22	39.63	8.75	44.12	9.61
	3	39.14	8.89	--	--	47.03	10.35
Leader structure	1	65.50	6.42	64.08	7.43	63.59	7.37
	2	66.02	6.55	64.38	7.54	63.17	8.21
	3	65.66	6.88	--	--	65.39	6.70
Sociometric attraction	1	3.81	0.56	3.66	0.53	3.51	0.62
	2	3.62	0.55	3.49	0.62	3.36	0.66
	3	3.67	0.57	--	--	3.52	0.65
Sociometric proficiency	1	3.89	0.61	3.71	0.64	3.58	0.70
	2	3.48	0.62	3.51	0.66	3.28	0.73
	3	3.61	0.68	--	--	3.59	0.69
Macro outcomes	1	3.93	0.69	3.87	0.77	3.98	0.72
	2	3.99	0.58	3.75	0.72	3.93	0.73
	3	4.02	0.66	--	--	4.07	0.64

Note: n varies from 82 to 100.

^aTreatment = 1, placebo = 2, control I = 3.

^bPerceptions of certain events that occurred late in training were measured just prior to graduation.

* $p < .05$.

** $p < .01$.

operationalized as the discrepancy between entering expectations and perceptions one month later. It may have been too optimistic to expect the effects of the RJP to produce a measurable effect on this one-month discrepancy. By the end of a month, attrition had already occurred. Usable separation questionnaires were not collected from approximately 40% of those who left. At any rate, what, if any impact the film had on expectations was clearly not detected by the measures employed.

Of the three studies that checked to see if the RJP had an effect on turnover, Wanous (1973) and Ilgen and Dugoni (Note 3) found that the RJP lowered expectations. However, neither found a significant impact on turnover. Youngberg (1963) found that none who received the RJP were in the low realism group, and he did find significantly lower turnover in the RJP group.

Hypotheses and Results

Hypothesis 1: Turnover

The first hypothesis stated that the RJP group would have a lower rate of turnover than the control groups. As shown in Table 10, the three treatment groups had a combined attrition rate of 10.3% as compared to 14.9% for the control groups. Although in the right direction, the results did not reach an acceptable level of statistical significance, $\chi^2 (1) = 1.88$, $p < .17$. This finding was comparable to that of Wanous (1973) who found the reduction in attrition in his study to be $.10 < p < .20$.

In Table 11 the turnover rates for each group are presented. Note the lowest attrition rate (10.3%) was in the RJP group. Recall from the experimental design in Figure 10 that the experiment was conducted in each of the three training battalions. Attrition by battalion is presented in Table 12. It is clear from this table that there was a difference in attrition across the three battalions $\chi^2 (2) = 7.62$, $p < .02$. Battalion B had significantly lower attrition (10.3%) than either battalions A (19.3%) or C (12.8%). This result was expected since, traditionally, rates of turnover among the training battalions differed. It can be seen from Table 13 that the treatment groups in each of the three training battalions had the lowest rate

Table 10
 Three-Month Total Attrition:
 Treatment Versus Controls

	Treatment	Controls	Total
Accessions	156	429	585
Separations	18 (10.3%)	75 (14.9%)	93 (13.7%)
Total	174	504	678

^aCorrected χ^2 (1) = 1.88, $p < .17$, $\phi = .06$.

Table II
Three-Month Turnover by Groups^a

	Treatment	Placebo	Control I	Control II	Total
Accessions	156	147	140	142	585
Separations	18 (10.3%)	27 (15.5%)	26 (15.7%)	22 (13.4%)	93 (13.7%)
Total	174	174	166	164	678

^a $\chi^2 (3) = 2.69$, n.s., $\phi = .06$.

Table 12
Three-Month Attrition by Battalion^a

	Battalions			Total
	A	B	C	
Accessions	155	226	204	585
Separations	37 (19.3%)	26 (10.3%)	30 (12.8%)	93 (13.7%)
Total	192	252	234	678

^a χ^2 (2) = 7.62, $p < .02$, Cramer's $V = .11$.

Table 13
Attrition by Group for Each Battalion

Battalion ^a	Experimental Groups					
		Treatment	Placebo	Control I	Control II	Total
A	$\frac{n}{\%}$ Separations	50 8 16	49 8 16.3	52 11 21.2	41 10 24.4	192 37 19.3
B	$\frac{n}{\%}$ Separations	62 3 4.8	64 10 15.6	61 8 13.1	65 5 7.7	252 26 10.3
C	$\frac{n}{\%}$ Separations	62 7 11.3	61 9 14.8	53 7 13.2	58 7 12.1	234 30 12.8
Total	$\frac{n}{\%}$ Separations	174 18 10.3	174 27 15.5	166 26 15.7	164 22 13.4	578 93 13.7

^a An experiment was conducted in each of the three training battalions.

of attrition within their battalion. Note this difference was small in battalion A. It also is clear from this table that the greatest difference in attrition among the treat-

An attempt was made to determine if the low rate of attrition was possibly caused by a bias toward turnover on the part of the leadership. Previous rates of turnover were available only for the senior drill instructors (SDI). Each platoon had one SDI and three regular drill instructors. Only three of the SDI's had ever been in charge of previous platoons and none of them were in the treatment platoons. Drill instructors spend a two year tour of duty as drill instructors. Not all get to be SDI's and the SDI's seldom have more than a few platoons before their tour ends. Therefore, it was not possible to determine if there was any bias toward attrition by the SDI's.

Graen and Ginsburgh (1977) pointed out the importance of the leader in the assimilation of newcomers into organizations. It is possible that any impact the RJP may have had, could have been attenuated by the leadership in some platoons. One reason for giving the RJP in all battalions was because of past differences in attrition rates between battalions. Drill instructors who view it their job

to try and "save" the marginal performers rather than trying to "weed" out the marginal performers may enhance the effects of the RJP. Those leaders seeking to identify and get rid of the marginal recruit may negate the effects of the RJP.

Another problem in finding statistical significance may be the restricted range on attrition. The overall attrition rate (not including fraudulent and erroneous entry) was 13.7%.

Voluntary Turnover

It was suspected that the RJP may have had a greater influence on voluntary turnover (Reilly et al., 1979). Also, turnover among certain types of recruits may be desirable from the organization's viewpoint. Voluntary turnover was measured via a self-report item on the attrition survey.

The results are shown in Table 14. Note that of the 129 separations, only 78 completed useable questionnaires. There were 33 who reported that they were leaving the organization because they wanted to. Due to the small sample size, voluntary attrition was compared across the combined treatment versus control groups. There was no significant difference between groups, $\chi^2(1) = 1.567$, $p < .21$. However, there was a voluntary attrition rate of only 3.3% in

Table 14
Three-Month Voluntary Attrition^a

	Treatment	Controls	Total
Accessions	146	403	549
Voluntary Separations	5 (3.3%)	28 (6.5%)	33 (5.7%)
Total	151	431	582

Note. Only 78 of the 129 separations completed useable questionnaires. Involuntary attrition was 6.4% in the control groups and 7.4% in the treatment group.

^aCorrected χ^2 (1) = 1.567, n.s., ϕ = .06.

the treatment groups versus 6.5% in the control groups. Reilly et al. (1979) also found slightly lower voluntary attrition in their RJP group.

From the results in Table 14, there is some weak support that the RJP may have helped reduced attrition among the individuals that the organization wants to keep.

Long-Term Survival Rate

It is possible the RJP may have merely delayed attrition. Perhaps certain individuals would have terminated during recruit training if they had not received the treatment but did terminate after graduation. Turnover was also restricted in training. For these reasons, as well as for the improved statistical analysis, six-month and one-year turnover rates were computed for the participants.

Six-month turnover. Results of the analyses for the six-month turnover rates are presented in Tables 15 and 16. In Table 15 turnover is presented for each group. Although in the right direction, the overall differences were not significant, $\chi^2 (3) = 6.07, p < .11$. In Table 16, the treatment group was compared to the combined turnover rates of the placebo and control groups. The turnover rate for the treatment group was 14.9% as compared to 23.8% for the control groups, $\chi^2 (1) = 5.51, p < .02$.

Table 15

Six-Month Turnover by Groups

	Treatment	Placebo	Control I	Control II	Total
Accessions	148	133	127	124	532
Separations	26 (14.9%)	41 (23.6%)	39 (23.5%)	40 (24.4%)	146 (21.5%)
Total	174	174	166	164	678

$$\chi^2 (3) = 6.07, p < .11$$

Table 16

Six-Month Turnover: Treatment vs. Controls

	Treatment	Controls	Total
Accessions	148	384	532
Separations	26 (14.9%)	120 (23.8%)	146 (21.5%)
Total	174	504	678

Corrected χ^2 (1) = 5.51, $p < .02$.

This finding is similar to those reported by Youngberg (1963) and Weitz (1955) for the six-month survival rates. Youngberg (1963) found weak support, $t(404) = 1.48$, $p < .10$ for three-month survival and $t(404) = 2.94$, $p < .002$ for six-month survival.

One-year survival rates. Youngberg (1963) reported one-year mean weeks survival to be significantly greater for the treatment group $F(1,256) = 7.26$, $p < .01$. Results from the present study are shown in Tables 17 and 18. The attrition rate for the one-year measure in Table 17 showed the treatment group to have significantly lower turnover than the three control groups, $\chi^2(3) = 10.97$, $p < .01$. When all controls were grouped together, the significance level was 22.4% versus 33.1%, $\chi^2(1) = 6.53$, $p < .01$.

Discussion of Turnover Results

The test for homogeneity of variance in Tables 15 through 18 were significant. However, since the smaller variance was in the smaller group in Tables 16 and 18, and since the groups' sizes and variance do not differ greatly in Tables 15 and 17, violations of the homogeneity of variance assumption may be underestimating the F ratio (see Myers, 1972, for a discussion).

Table 17

One-Year Turnover by Groups

	Treatment	Placebo	Control I	Control II	Total
Accessions	135	126	105	106	472
Separations	39 (22.4%)	48 (27.6%)	61 (36.7%)	58 (35.4%)	206 (30.4%)
Total	174	174	166	164	678

$\chi^2 (3) = 10.97, p < .01$

Table 18

Turnover: Treatment vs. Controls

	Treatment	Controls	Total
Accessions	135	337	472
Separations	39 (22.4%)	167 (33.1%)	206 (30.4%)
Total	174	504	678

Corrected χ^2 (1) = 6.53, $p < .01$

Clearly, the RJP had some impact on turnover. The significance became more pronounced over time. It would be highly speculative to conclude that the RJP had some sort of a "sleeper effect." However, if the initial entry period is as critical as some researchers indicate (see Van Maanen, 1975, for a review), perhaps the initial impact is to salvage those marginal newcomers who make it through the hard times and then become less likely to leave as things get better.

Hypotheses 2 Through 5:
Precursors to Turnover

Hypotheses 2 through 5 stated, respectively, that the RJP group would have: fewer intentions to quit, fewer thoughts of quitting, greater job satisfaction, and greater commitment to the organization. These hypotheses were tested using Equations 1 through 3 (pages 105 & 106) plus an additional analysis of covariance to test for any changes from the third to the last questionnaire. This fourth equation involved regressing the measure taken at time three, (one month after entry) and the dummy code for the group variable on the same variable in time four (three months after entry). This equation is as follows:

$$Q_{4_i} = Q_{3_i} + \text{Group}$$

where: Q_{4_i} = perceptions of variable i at time four

Q_{3_i} = perceptions of variable i at time three

Group: treatment = 1; controls = 0

Just as in the previous equations, the difference over time due to treatment was assessed by the R^2 change formula (Kerlinger & Pedhazur, 1973).

As shown in Table 19, the analyses of covariance showed no statistically significant R^2 increase due to treatment for any of these hypotheses. An ANOVA was calculated for each variable. There were no statistically significant differences in the expected direction for any of the variables. It is clear from these results that the RJP had no significant influence on the precursors to turnover.

As mentioned earlier, Wanous (1973) reported similar significance levels with respect to attrition as the present study. He also found the RJP group had significantly fewer thoughts of quitting. The present study did not support this finding. Wanous (1973) also found significant increases in job satisfaction for the RJP group. The present results are consistent with the statistically non-significant finding of Ilgen and Dugoni (Note 3) with respect to job satisfaction.

Since the Wanous (1973) study gave the RJP prior to job acceptance and the Ilgen and Dugoni (Note 3) and

Table 19

Analyses of Covariance: Hypotheses Two
Through Five

Hypotheses	Variable	Equation ^a	Group ^b Beta	R ² Change	F ^c Change
2.	Intention to quit	1	-.0908	.0082	1.893
		2	.0774	.0059	1.551
		3	.0566	.0032	0.597
		4	-	-	-
3.	Thoughts of quitting	1	.0326	.0011	0.040
		2	.0035	.0000	0.000
		3	-.0010	.0010	0.000
		4	.0561	.0032	1.089
4a.	General Satisfaction	1	-.0399	.0016	0.572
		2	-.0886	.0077	2.687
		3	.0617	.0038	0.554
		4	.0213	.0005	0.155
4b.	Extrinsic satisfaction	1	.0351	.0012	0.439
		2	-.0931	.0086	2.812
		3	-.0835	.0069	1.145
		4	.0078	.0001	0.019
4c.	Intrinsic satisfaction	1	-.0264	.0007	0.229
		2	-.0617	.0037	1.230
		3	.0600	.0036	0.599
		4	.0316	.0010	0.332
5.	Organizational commitment	1	.0118	.0001	0.052
		2	-.0580	.0034	1.077
		3	.0322	.0010	0.162
		4	-.0191	.0004	0.118

Note. Pretest by group interactions were not significant,
df vary from 170 to 257.

$$^a(1) Q_{2i} = Q_{1i} + \text{Group}$$

$$(2) Q_{3i} = Q_{1i} + \text{Group}$$

$$(3) (Q_{3i} - Q_{2i}) = Q_{1i} + \text{Group}$$

$$(4) Q_{4i} = Q_{3i} + \text{Group.}$$

^bGroup codes: treatment = 1, controls = 0.

^cAll n.s. at .05.

the present study gave the RJP after acceptance, it may be that the self-selection process in the former study accounted for the significant difference in thoughts of quitting and satisfaction. Unfortunately, none of the other RJP studies measured intentions to quit.

Hypothesis 6: Job Ambiguity

The sixth hypothesis stated that the RJP group should expect less job ambiguity than the control groups. Expected job ambiguity was measured by surveys three and four. As shown in Table 20, there was a significant group effect. The RJP group expected significantly, $F(1,194) = 4.209$, $p < .05$, less job ambiguity after seeing the film than the control groups when controlling for initial expected ambiguity.

The ANOVA for each group across all four time periods is presented in Horner (1979). Although none of the ANOVA's were significant, the RJP group reported lower expected ambiguity after seeing the film and reported the lowest perceived job ambiguity one month after entry than any of the other groups.

Although the manipulation check failed to show that the RJP altered expectations, this reduction of job ambiguity showed that the RJP did have a desirable impact on the participants. One underlying theme of the

Table 20
Analyses of Covariance: Job Ambiguity

Equation	Group ^a Beta	R ² Change	df	F Change
1	-.1238	.0153	194	4.209*
2	-.0088	.0001	257	0.023
3	-.0565	.0032	178	0.583
4	-.0835	.0069	257	2.192

^aGroup codes: treatment = 1, placebo = 0.

*p < .05.

organizational socialization literature as reviewed by Van Maanen (1976), the organizational entry literature as reviewed by Wanous (1978), and the literature on role making (Graen, 1976; Graen & Ginsburgh, 1977; Graen & Orris, 1973) was the importance of job clarity in the successful assimilation of new members into organizations.

Hypothesis 7: Efficacy Expectations

According to the seventh hypothesis, the RJP group should report higher efficacy expectations in dealing with certain difficult aspects of the job. Efficacy expectations were measured with the first two surveys. Therefore, only Equation 1 was used to measure the difference in efficacy expectations due to the RJP. The results of the analyses of covariance are presented in Table 21 for both efficacy expectations of the events experienced through training and the special events not encountered until later in training.

The results of these analyses were not statistically significant. The negative sign for the betas (-0292 for Equation 1 and -0214 for Equation 2) indicate that the RJP group declined in efficacy expectations after viewing the film.

When considered with hypothesis six and seven, the negative betas are inconsistent with the modeling

Table 21
Analyses of Covariance: Efficacy Expectations

Variable	Equation ^a	Group ^b Beta	R ² Change	df	F ^c Change
Efficacy expectations	1	-.0292	.0011	184	0.430
Special events- efficacy expectations	2	-.0214	.0054	247	1.147

^a (1) $Q_{2i} = Q_{1i} + \text{Group.}$

(2) $Q_{3i} = Q_{1i} + \text{Group.}$

^b Group codes: treatment = 1, controls = 0.

^c All n.s. at .05.

literature (Bandura, 1977). However, in the present study, efficacy expectations were measured shortly after seeing the RJP film. Recruits with unrealistic expectations as to the difficulty of the training, may have suffered a decrease in confidence. However, after they successfully handled some of the stressful situations, their efficacy expectations may have been enhanced. The inoculation (McGuire, 1964) may have produced a temporary reduction in efficacy expectations, but this dose of realism may have caused efficacy expectations to increase when faced with the actual situation. There was no way to test this post hoc explanation.

Hypothesis 8: Ability to Cope

The eighth hypothesis stated that the RJP group would report that they were better able to cope with certain difficult aspects of training than the control groups. Some of the events in recruit training were experienced prior to the third survey and were continually experienced until the end of training. To measure the differences in coping with these difficult aspects of training an ANOVA was used to analyze ability to cope in both times three and four. The results are shown in Tables 22 and 23. The upper half of each table shows the data for each group. The lower half contains the comparison of the treatment to all control groups.

Table 22

Analyses of Variance: Ability to Cope
With Difficult Aspects of
Training One Month After Entry

Group	N	M	SD	MS ^a	df	F ^b
Treatment	67	3.846	0.533	3.846	3	0.970
Placebo	55	3.764	0.481	(0.3124)	257	
Control I	71	3.747	0.590			
Control II	68	3.683	0.607			
Treatment	67	3.846	0.533	0.6791	1	2.184
Controls	194	3.729	0.566	(0.3109)	259	

^aWithin groups MS in parentheses.

^bAll n.s. at .05.

Table 23

Analyses of Variance: How Well Coped with
Difficult Aspects of Training as Reported
Just Prior to Graduation

Group	N	M	SD	MS ^a	df	F
Treatment	67	4.085	0.603	0.5631	3	1.488
Placebo	54	4.000	0.629	(0.3785)	249	
Control I	68	3.915	0.600			
Control II	64	3.877	0.632			

Treatment	67	4.085	0.603	1.2315	1	3.264*
Controls	186	3.927	0.603	(0.3773)	251	

^aWithin groups MS in parentheses.

* $p < .07$.

As shown in Table 22, one month after entry, the RJP group reported that they were better able to cope with these events or situations. Although in right directions the differences were not statistically significant, $F(1,259) = 2.184$, n.s. Prior to graduation, the RJP group again reported that they were better able to cope with these difficult aspects of training (see Table 23), but the difference was not statistically significant, $F(1,251) = 3.264$, $p < .07$.

Certain events that were not experienced until after the third survey were measured by the final survey. An ANOVA was run on the groups' ability to cope with these events (see Table 24). This analysis showed no significant differences. However, the RJP group did report greater ability to cope than any of the three control groups.

Ilgen and Dugoni (Note 3) found no support for the impact of the RJP on coping in their study. Although the RJP in the present study was designed to teach newcomers how to deal with difficult aspects of training, it may not have done enough to aid the newcomers in dealing with the difficult situations. Although in the right direction, the self-reported ability to deal with these difficult events was not statistically different between groups.

Table 24

Analyses of Variance: How Well Coped With
Special Events as Reported
Prior to Graduation

Group	N	Mean	SD	MS ^a	df	F
Treatment	67	11.702	2.277	2.8627	3	0.534
Placebo	57	11.351	2.595	(5.3633)	257	
Control I	73	11.863	2.016			
Control II	64	11.641	2.413			

Treatment	67	11.702	2.277	0.1916	1	0.036
Controls	194	11.639	2.327	(5.3543)	259	

^aWithin groups MS in parentheses.

Hypothesis 9: Job Performance

The ninth hypothesis stated that the treatment group would have a higher level of performance than the control groups. Performance was measured in two ways. One measure was the number of recruits who were recycled. A recycled recruit is one who has to repeat a portion of training or who is not able to be trained with the rest of his group. Recruits may be recycled for failure to perform at an acceptable level of performance or they may have been unable to continue training for medical reasons. The second performance measure was a composite score comprised of graded evaluations of military skills referred to as Military Skills Marks (MSM). This score was chosen because it is a comprehensive performance measure. Rather than relying on the subjective evaluation of one or two instructors, these scores are given based on objective performance measures.

As shown in Table 25, there was no difference in the number of recycles between the treatment group and all control groups. The ANOVA for the differences on MSM is presented in Table 26. There was a significant difference between groups but according to the Scheffé Test (Scheffé, 1959) the placebo group was significantly lower than the other groups. Note that the treatment group had the highest, but nonsignificant, performance scores. When the treatment

Table 25
 Recycles: Treatment Versus Controls^a

	Treatment	Controls	Total
Non-Recycled	129	374	503
Recycled	46 (26.3%)	129 (25.6%)	175
Total	175	503	678

^aCorrected χ^2 (1) = .0044, n.s., ϕ = .01.

Table 26
Analyses of Variance: Total Performance Scores

Group	N	M	SD	MS ^b	df	F
Treatment	130	43.846	4.835	163.417	3	8.431***
Placebo I	135	41.200 ^a	4.430	(19.383)	515	
Control I	124	42.724	3.241			
Control II	130	43.046	4.859			
Treatment	130	43.846	4.835	230.313	1	11.626***
Controls	389	42.309	4.316	(19.811)	517	

^a Mean significantly different from others (Scheffé test, $p < .05$).

^b Within group variance in parentheses.

*** $p < .001$.

was compared to all other groups, lower half of Table 26, there was a significant difference between the RJP group and all others. Performance scores were significantly higher for the treatment group, $F(1,517) = 11.626, p < .001$.

This hypothesis was supported by the performance scores but not by the number of recycles. One problem with the recycle measure as a performance criterion is that some recruits are recycled for reasons other than failure to perform up to standard. It was not possible to sort out the various reasons in the present study. Also, the decision to recycle a recruit is usually made by one or two drill instructors. The leaders' attitudes toward recycling may vary among platoons and may have as much an impact on the number of recycles as actual performance.

The MSM are given by a number of different instructors and are based on objective test scores. Based on the findings of the previous hypothesis and from the MSM from the present hypothesis, there is reason to believe that the RJP film had an impact on job performance.

This finding is in agreement with that of Gomersall and Myers (1966). Datel and Lifrak (1969), Wanous (1973), and Youngberg (1963) found no differences between groups on performance. The present study and the Gomersall and Myers (1966) study focused on teaching newcomers how to deal with difficult aspects of the job. The others

presented facts concerning the job. The impact of RJP's may be enhanced if they not only present realistic information, but also teach the newcomers how to deal with stressful situations.

Hypothesis 10: Value Change

The tenth hypothesis predicted that the treatment group would change their values more than the control groups. The change in values was computed for both micro and macro outcomes. This hypothesis was tested first by summing the absolute difference between entering desirabilities of outcomes and the same desirabilities after seeing the treatment or the placebo films. A t test was used to test for significance.

The results are presented in Table 27. The treatment group changed their desirability ratings more than the placebo group for both micro, $t(200) = 1.80, p < .05$ and macro outcomes, $t(200) = 2.04, p < .05$. In order to determine the stability of these changed desirabilities, a repeated measures analyses of variance was used. As shown in Table 28, there was no significant interaction effect of group by time. The desirabilities continued to change for both groups over time, but the later change was not significantly different between the two groups.

Table 27
Change in Values from Pretest to First Posttest

Variable	Group ^a	N	M	SD	t
Job outcome desirabilities	1	110	5.882	4.733	1.80*
	2	91	4.824	3.315	
Organization outcome desirabilities	1	110	3.127	3.408	2.04*
	2	91	2.330	2.082	

^aGroup codes: treatment = 1, placebo = 0.

* $p < .05$, two-tailed test.

Table 28

Repeated Measures Analyses of Variance for
Change in Values from the Second
Through Fourth Time Period

Variable	Source	MS	F ^a
Job outcome desirabilities	Group	53.395	0.647
	Error	82.530	
	Time	61.306	2.040
	Group x Time	36.623	1.221
	Error	30.007	
Organizational outcome desirabilities	Group	112.563	3.465
	Error	32.483	
	Time	5.855	0.548
	Group x Time	5.855	0.548
	Error	10.676	

Note. Group codes: treatment = 1, placebo = 0,
df = 1,104.

^aAll n.s. at .05.

If, as suggested by Locke (1969, 1976), the discrepancy between what an individual wants, desires, or values and what the person perceives he/she has received is the major determinant of satisfaction, then the ability to change these values among newcomers may be more important than changing expectations. The organizational socialization literature supports the concept that newcomers are in a situation where they are more likely to change than at any other time in their career (Van Maanen, 1976). The present results demonstrate the feasibility of early value change via an RJP.

Hypothesis 11: Trust and Honesty

The eleventh hypothesis stated that the RJP group would have greater feelings of trust and honesty toward the organization. As shown in Table 29, there was no support for this hypothesis. Inspection of the means from the ANOVA's (Horner, 1979) reveals that the RJP group did report greater feelings of trust and honesty toward the organization than any other group. However, the difference was not statistically significant.

As suggested earlier, giving the RJP prior to selection would probably have a greater impact on creating feelings of trust and honesty toward the organization. Showing the RJP after it is too late for the newcomers to

Table 29
Analyses of Covariance: Trust and Honesty

Equation ^a	Group ^b Beta	R ² Change	df	F ^c Change
1	.0586	.0034	196	1.264
2	.0066	.0000	258	0.013
3	-.0023	.0000	182	0.001
4	.0605	.0037	264	1.281

^a(1) $Q_{2_i} = Q_{1_i} + \text{Group}$

(2) $Q_{3_i} = Q_{1_i} + \text{Group}$

(3) $(Q_{3_i} - Q_{2_i}) = Q_{1_i} + \text{Group}$

(4) $Q_{4_i} = Q_{3_i} + \text{Group}$

^bGroup codes: treatment = 1, controls = 0.

^cAll n.s. at .05.

leave does not appear to have any influence on feelings of trust and honesty. This supports the finding of Ilgen and Dugoni (Note 3).

Individual Level Hypotheses

Hypotheses 12 through 20

Since the next set of hypotheses are so closely related, they are dealt with as a group rather than individually. In order, hypotheses 12 through 19 stated that met expectations would be: inversely related to attrition, intentions to quit, thoughts of quitting; and directly related to job satisfaction, ability to cope, job performance, and trust and honesty. Hypothesis 20 stated that weighting met expectations by values would enhance the correlations with the criterion. These hypotheses were tested by computing Pearson product-moment correlations between each variable above with eight types of met expectation sets with micro and macro outcomes combined and separately.

Met expectations were computed as the difference between the probability of receiving certain outcomes at entry and the perceived probability of receiving those same outcomes one month later. Expectations for the first

two groups in each battalion were measured by the second questionnaire. For the third group in each battalion, the first questionnaire was used as the measure of expectations. Recall from Figure 10 (p. 87), that this group did not receive the second survey. The purpose was to measure expectations prior to the start of training. Perceptions were measured by the third survey except for those who left the organization. The attrition questionnaire served as the measure of perceptions for this group.

Each measure of expectation sets added more detail than the preceding set (see Table 30). First the summed absolute discrepancy between expectations in times one and two was calculated. Next, the magnitude was computed by summing the signed discrepancies. Then those expectations that were exceeded in time three and those that had a lower probability than expected were summed. Then each of the above met expectation sets were weighted by the desirability ratings.

The Pearson-product moment correlations for the eight met expectation sets for both macro and micro factors combined are presented in Table 30. Of the various expectations sets, the absolute magnitude and the expectation set in which the probability of obtaining certain outcomes was found to be less than originally expected were the ones with the highest correlations. Of these two sets,

Table 30
Pearson-Product Moment Correlations: Met Expectation Sets
of Micro and Macro Outcomes with Criteria

	Turnover	Intentions	Thoughts	Satisfaction	Commitment	Ability to Cope	Performance	Treat & Money
Absolute Magnitude	.1447*	.1374*	.1067	-.0923	-.1306	-.1704**	-.0825	-.1388*
Magnitude	-.2064**	-.0272	-.0134	.1243	.1917**	.1657*	.0711	.1818**
More Than Expected	-.0635	.0599	.0520	.0338	.0590	.0206	.0040	.0494
Less Than Expected	.2763***	.1378*	.0934	-.2123**	-.2808***	-.2708***	-.1464*	-.2700***
Weighted Absolute Magnitude	.0802	.0607	-.0779	.1219	-.0905	.0735	-.0760	-.0064
Weighted Magnitude	-.1203	.0361	.1681*	.0349	.0697	.0845	.0457	-.0085
Weighted More Than Expected	-.0054	.0043	.0666	.0659	-.0330	.1012	-.1104	-.0894
Weighted Less Than Expected	.1428*	-.0371	.0928	.0623	.0738	-.0320	-.0162	.0589

Note. n ranges from 203 to 243.

*p < .05, two-tailed.

**p < .01, two-tailed.

***p < .001, two-tailed.

the less than expected set had higher correlations than the absolute magnitude set in every case.

According to Table 30, individuals who perceive a lower probability between the job and certain micro and macro outcomes than was originally expected were more likely to quit, had higher intentions to quit, experienced less general, intrinsic, and extrinsic satisfaction, were less committed to the organization, had lower ability to cope with difficult aspects of the job and reported less trust and honesty in the organization. All of the above were statistically significant. Therefore, hypotheses 12 through 19 were supported. Weighting the discrepancy between expectations and perceptions by values did not improve the correlations as suggested by hypothesis 20.

Next, the difference in correlations for micro and macro outcomes were assessed. In Table 31 the micro expectation sets were correlated with the variables above. A comparison of this table with Table 30 shows that the combined micro and macro set were generally more highly correlated with the criterion than the micro expectation sets. From Table 32, it can be seen that the macro expectation set was not as highly correlated with the variables of interest as either the micro or the combined expectations sets.

From these three tables it can be concluded that hypotheses 12 through 19 are supported most when the

Table 31
Pearson-Product Moment Correlations: Met Expectation Sets
of Micro Outcomes with Criteria

	Turnover	Intentions	Thoughts	Satisfaction	Commitment	Ability to cope	Performance	Trust & loyalty
Absolute Magnitude	.2571***	.1123	.0546	-.1127	-.1293	-.1732**	-.0909	-.1216
Magnitude	-.2173***	-.0214	-.0526	.1482*	.2166**	.1320*	.0762	.2026**
More Than Expected	-.0746	.0225	.0245	.0251	.0523	.0965	-.0840	.0624
Less Than Expected	.1892*	.0702	.0280	-.0069	-.0806	-.1755*	-.0121	-.0820
Weighted Absolute Magnitude	-.0523	.0019	-.0664	.0870	-.0320	-.0493	-.0349	-.0022
Weighted Magnitude	.0979	.1255	.0175	-.1052	-.2094**	-.0686	-.0641	-.1827**
Weighted More Than Expected	-.0004	.0410	.1444	.0448	-.0746	.1055	.0041	.0576
Weighted Less Than Expected	.1350	.0462	.1264	.1607*	.1108	-.0589	-.0608	.0386

Note. n ranges from 130 to 243.

*p < .05, two-tailed test.

**p < .01, two-tailed test.

***p < .001, two-tailed test.

Table 32

Pearson-Product Moment Correlations: Met Expectation Sets
of Macro Outcomes with Criteria

	Turnover	Intentions	Thoughts	Satisfaction	Commitment	Ability to Cope	Performance	Trust & Honesty
Absolute Magnitude	.1620*	.0912	.1680*	-.0162	-.0565	-.0961	-.0675	-.1078
Magnitude	-.1024	-.0274	.0603	.0554	.0913	.1965**	.0649	.0939
More Than Expected	.0347	.2739**	.0363	-.0531	-.0548	.0326	-.0621	-.0416
Less Than Expected	-.0921	-.0754	-.1225	.0531	.0679	.1036	.0314	.0407
Weighted Absolute Magnitude	.1621**	.0912	.1680**	-.0162	-.0565	.0960	-.0675	-.1078
Weighted Magnitude	-.0427	.0221	-.0270	.1555*	.0880	.0878	-.0538	.0176
Weighted More Than Expected	.0191	-.0457	.1165	.0425	.1035	.1121	.1431*	-.0147
Weighted Less Than Expected	-.1482*	.0055	-.1291*	.0816	-.0839	.2104**	.0482	.1465*

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Note: n ranges from 137 to 243.

*p < .05, two-tailed test.

**p < .01, two-tailed test.

***p < .001, two-tailed test.

expectation sets are such that individuals perceive a lower probability between being in a role and certain outcomes than originally expected. It should be noted that the majority of the outcomes were generally rated as being desirable.

The results contained in Table 30 clearly support the met expectation hypothesis (Porter & Steers, 1973). The strongest correlation was between the combined micro and macro expectation set that was less than expected and commitment ($r = -.28$) and attrition ($r = .28$). Expectation sets which were not met or exceeded also correlated significantly with: intentions ($r = .14$); general satisfaction ($r = .21$); ability to cope ($r = -.27$); performance ($r = -.15$), and feelings of trust and honesty ($r = -.27$).

Wanous (1978) suggested the importance of separating micro and macro expectations. When considered individually in the present study, micro expectations were more highly correlated with the criterion than macro expectations. However, the strongest correlations were produced when both types of expectations were combined and the individual perceived a lower probability of obtaining the outcomes than originally expected. As suggested by Harvey and Clapp (1965) and Veneris et al. (1968), both the magnitude and the direction of the discrepancy from expectations were considered. In the present study, the

signed magnitude (more or less than expected) was more highly correlated with the criterion than when the direction (toward or away from a valued outcome) was not considered. The reason for this may have been that the outcomes measured were generally desirable outcomes and weighting this with a four or five on a 5-point scale restricted the impact of the desirability ratings. This finding is consistent with the expectancy theories reviewed earlier (see House et al., 1974; Mitchell, 1974).

Hypothesis 21: Acceptable Alternatives

The last hypothesis stated that the probability of finding an acceptable alternative(s) would moderate the relationship between thoughts of quitting and intention to quit. As shown in Table 33, thoughts of leaving and the probability of finding an acceptable alternative were positively related to intentions to quit. When the interaction between thoughts and alternatives were added to the equation, the R^2 increase was significant, $F(3,415) = 22.76, p < .001$.

In order to understand the nature of this interaction, four groups were formed with a median split on probability of finding an acceptable alternative and on thoughts of quitting. The mean score on intentions to quit for each group is presented in Table 34. As expected, the group with a high probability of finding an acceptable alternative had more thoughts of quitting and had the highest intentions to quit.

Table 33
 Chances of Finding Acceptable Alternatives as a
 Moderator of Intentions and Thoughts
 of Leaving

Variable	Beta	Univariate F	R	df	Overall F
Thoughts and Alternatives	0.3223 0.0314	44.037 0.445	.3096	2/416	22.048***
Interaction of Thoughts and Alternatives	0.4824	56.313	.3455	2/416	28.187***

Note. R^2 Change = .0359, $df = 415$, F Change = 22.763***.

*** $p < .001$.

Table 34

Intentions to Leave by Thoughts of Quitting and
Chance of Finding an Acceptable Alternative^a

Chances of finding an acceptable alternative	Thoughts of Quitting	
	Low	High
Low	1.234 ^a (0.860) $\underline{n} = 80$	1.363 (0.667) $\underline{n} = 124$
High	1.171 (0.681) $\underline{n} = 76$	1.417 (0.842) $\underline{n} = 139$

Note. The first number is the group mean on intentions.
The SD is in parenthesis.

^a $F(3.415) = 2.123, p < .10.$

This supports the model developed by Mobley (1977) and agrees with the findings of Dansereau et al. (1974) and Mobley et al. (1978).

Summary of Results

The results indicated that the experimental sample had a significantly lower education level than the population. However, there were no significant differences between experimental groups in the study on the demographic variables. The scales had generally acceptable levels of internal consistency. A manipulation check showed that the RJP did not create more realistic expectations for those expectations that were measured.

At the group level of analysis, the RJP had a statistically significant impact on two of the explanatory mechanisms. There was a significant change in values for the treatment group and this group expected their job to have more role clarity than the control groups. The RJP group also had significantly higher performance scores. Although in the expected direction, the reduction in attrition in the treatment group did not reach statistical significance at the end of training but did exhibit significantly lower attrition six months and one year after entry. There was weak support for the self-reported ability of the RJP group to deal with certain difficult aspects of training.

On the individual level, it was found that individuals who do not have their expectations met or exceeded, were more likely to withdraw or to have higher propensities to withdraw than those with met or exceeded expectations. This supported the met expectation hypothesis (Porter & Steers, 1973). The individual's tolerance for ambiguity may have been an important moderator of the effect of met expectations on the criteria. Need for clarity may not have adequately measured this individual characteristic.

VI. LIMITATIONS, INTEGRATION, AND PRACTICAL IMPLICATIONS

This chapter includes a discussion of the limitations of the present study followed by an attempt to integrate the literature relevant to the study of RJP's, and identification of future research needs. Finally, practical implications of the present study are presented.

Limitations

Experimental Procedures

Although every attempt was made to develop the best possible experimental design, several practical factors had to be considered. Assignment to groups was not a purely random process, it was based on arrival times. Assignment of treatment to groups was random only for the first two or three platoons in each battalion. Further, the generalizability of the results could have been improved by sampling both training centers and by selecting participants at different times in the year.

RJP Limitations

There were several problems with the RJP. The 80-minute video tape went to great lengths to "tell it like it is." There may have been too much detail in the RJP and this could have attenuated the more salient content in the video tape. Also attempts to show what the drill instructors would be like was difficult. There may not be a "typical" DI. Also, the attitude of the DI's toward recruits in different battalions, companies, or platoons may have lessened the impact of the film.

Only Ilgen and Dugoni (Note 3) found strong support for the creation of realistic expectations by the RJP. This may have been because their short RJP dealt with only the more salient aspects of a rather simple job. This approach may be superior to trying to show too much, too fast, in a film that may have been too long.

Mechanisms

The present study was not designed to address all possible psychological mechanisms that may help to explain the impact of RJP's on affect, intentions, and behavior. The possible effects of the modeling process were not directly measured, nor, were the possible effects of the RJP on inoculating the participants to help prepare them for the stress they were about to encounter. All possible

classifications of met expectations were not considered. There were only a few negative outcomes, and like previous RJP studies, effort-performance type expectations were not measured.

Integration and Implications for Future Research

Understanding the impact of RJP's on affect, intentions, and behavior of newcomers to organizations cuts across several areas of theory and research. These areas will be discussed in terms of five major classes of explanatory mechanisms referred to here as the "5 C's of RJP's": choice, change, clarity, coping, and characteristics of individuals. These classifications are not mutually exclusive but offer a systematic way to classify the literature relevant to each explanatory mechanism. A discussion of the literature and future implications for each class of mechanisms as it relates to RJP's is presented below.

Choice

The act of joining an organization involves the act of making and implementing an important choice. As noted

by Wanous (1977) in his review of the organizational entry literature, the theory of cognitive dissonance (Festinger, 1957) is directly involved in the choice process of newcomers to an organization. Attitudes and behaviors of the newcomers toward the organization chosen may be influenced by the dissonance created by making a choice among several attractive alternatives.

Because the impact of cognitive dissonance may change as the newcomer moves from outsider to newcomer to insider, future research should measure the change in attitudes and behaviors of newcomers before and after entry. Also, the impact of the RJP on dissonance needs to be studied. It may be that RJP's given prior to job acceptance have a different influence on the dissonance process than RJP's given after entry. Persons may be more committed to their decision if the RJP is given *prior* to job acceptance (Wanous, 1977). I am aware of no research that directly considered the effect of RJP's on cognitive dissonance.

Change

A major focus of the organizational socialization literature is on trying to get newcomers to accept the norms, values, and beliefs of the organization (Van Maanen, 1976). Frequently the newcomers must either change their values

and beliefs, or attempt to change the norms of the organization, or both before the socialization process is successful. The organizational socialization literature seems to accept the notion that newcomers are in a situation where they are more likely to change their values and beliefs than at any other time. As noted by Ilgen and Dugoni (Note 3), RJP's may affect expectations which may change the individual's values. It may be possible that the organization can change the person's values if it cannot or will not furnish what the individual desires.

It is unlikely that anything as simple as an RJP could change deep seated values. However, those role outcome peripheral values that are important to the newcomer, but also volatile, may be susceptible to change. It should be noted here that the organizational socialization literature also agrees that the newcomer brings certain values and motives that are relatively stable over time (see Van Maanen, 1975, pp. 73-74). In the present study, values which were related to turnover in a previous study (Mobley et al., Note 5) were shown to be influenced by the RJP. Even though the basic value system of the newcomer probably will not change, a change in the desirability of certain outcomes may help keep the person in the organization long enough for the more powerful influence of the socialization process to have an effect on the basic value system.

The present study did not consider the type of socialization strategy (see Van Maanen, 1978 for a recent discussion). Military socialization may be quite different from that of most organizations. However, Schein (1961, 1962, 1967, 1968) frequently has suggested that the results of "indoctrination" settings are remarkably similar regardless of organizational differences. Future research should consider the possible impact of RJP's on values and beliefs. It is important to know which values are in need of change and which can realistically be changed by RJP's. There also is a need to determine the temporal effects of the value change.

Clarity

The impact of clarity on newcomers through RJP's has received the most attention. Met expectations have shown weak but consistent inverse relations with turnover (Porter & Steers, 1973; Wanous, 1977). The importance of role clarity on newcomers has been studied by Graen and his associates. The role clarity literature has focused on the importance of the leader in helping newcomers define their organizational roles. An RJP may help answer the call for improved role sending mechanisms (Graen & Ginsburgh, 1977; Graen et al., 1973).

As suggested elsewhere (Ilgen & Dugoni, Note 3; Wanous, 1977), it also is possible that role clarity and met

expectations may enhance the newcomer's feelings of trust and honesty toward the organization. Neither the present study nor Ilgen and Dugoni (Note 3) found support for this suggestion.

Although there is weak but consistent support for the impact of met expectations and role clarity on turnover, there is a paucity of research that directly relates met expectations to turnover. There is even less research relating the influence of met expectations and role clarity on job performance, satisfaction, commitment, ability to cope, etc. as presented in RJP's. Also the differential effect of clarity given before the job is accepted versus after job acceptance needs to be studied.

One major problem in assessing the impact of clarity has been the lack of clarity in operationalizing the concept of met expectations. What should be measured, how should it be measured, and over what period(s) of time should be considered? Certain types of expectations may be strongly related to turnover and its precursors, other types may not be related at all.

Coping

The impact of the newcomer's ability to cope with what the organizational socialization and organizational entry literature agree is a stressful situation is closely

related to clarity discussed above. The modeling literature (Bandura, 1977; Weiss, 1977) has focused on teaching individuals how to cope with stressful situations by observing role models. This same concept was used in the present study to enhance role clarity as well as teach certain coping skills.

However, the present study did not consider the literature dealing with coping and stress (see Averill, 1973; Janis, 1958; Kahn et al., 1964; Sarason & Spielberg, 1975). Sells (1970) argued that the lack of control to respond to situations in which the outcome of the response is important to the individual creates the conditions required for stress. RJP's have the potential to let newcomers know what response is required and how to prepare themselves to respond correctly when the need arises. Stress inoculation (Meichenbaum et al., 1975) through RJP's may also aid the newcomer in coping with difficult aspects of the new job.

Future research needs to consider more effective ways to show newcomers how to cope with the new job. Perhaps interviews with experienced employees, live demonstrations, or some combination of these with booklets and film may be more effective. The nature of the particular job and organization may determine the best approach.

Characteristics

The impact of RJP's may be quite different for certain individuals than for others. Ambiguity has been shown to have an influence on performance and satisfaction. This relationship has been moderated by such individual differences as: need for clarity (Lyons, 1971); self-esteem (Weiss, 1977, 1978; Weiss & Knight, 1979); locus of control (Anderson, 1976; Korman, 1971); and self-expectations (Youngberg, 1963).

Future research needs to identify the types of individuals who are most likely to benefit or to be adversely affected by RJP's. Individuals with low self-confidence may need a different type of RJP than persons with high self-confidence. Also other individual differences such as manifest anxiety which have been shown to be related to turnover (Hakkinen & Toivainen, 1960) need to be considered.

Practical Implications

The practical implications of the present study are, perhaps, not as applicable to the business and governmental sector as they are to the military situation. The entry process for military enlistees is much different from that

of other types of organizations. However, the use of RJP's is practically applicable in any organization. The theory and research behind RJP's comes from a wide variety of theoretical and empirical research. The need to reduce uncertainty in the entry process is common to all organizations.

Based on the experience gained from this study, there are several suggestions that practitioners of RJP's may wish to consider. It is probably best not to cover too much detail about the job and organization. The same job performed in different locations within the same organization may vary. As things change over time, the RJP must be continually updated. One suggestion is to identify a few of the most salient micro and macro factors in need of realism. Where these outcomes involve a required response, teach the newcomer what response is most likely to achieve desired results. Showing new employees several types of coping mechanisms for the same situation may also improve the response capability of the newcomer. Certain jobs may be described best by booklets. Others may require video films, interviews with experienced employees by the new members or some combination of these approaches. It is important that the behaviors being taught are required and expected on the job.

In the present study, it was shown that RJP's shown after entry may have a desirable influence on newcomers.

Many organizations are not willing to take the chance that the RJP shown prior to job acceptance will discourage potential employees (see Reilly et al., 1979).

Turnover in the present study, as in several other RJP studies (Reilly et al., 1979; Wanous, 1973; Youngberg, 1963) was not reduced to a statistically significant level during the first several months after entry. However, the present study showed significant reductions in terminations over six-month and one-year intervals. Several other studies reported similar findings (Weitz, 1956; Youngberg, 1963). From a practical viewpoint, the possibility that turnover was reduced by as little as one or two percent could result in large, long-range payoffs. This is especially true since most of the RJP's given to date could be produced at a fairly low cost.

Huck and Midlam (Note 2) recently developed a model to estimate the cost of attrition in the Navy and Marine Corps. They estimated the cumulative cost for a new recruit who completes recruit training to be approximately \$5,327 per enlisted male. The organization receives no expected value in return because the recruit does not become a return on investment until after recruit training. The RJP used in this study showed a 4.6% difference in three month turnover when comparing all the treatment groups with all the controls. The resultant savings to the Marine Corps is estimated to be

$$(4.6\% \times N) \times \$5,327$$

where

N = the number of recruits entering the Marine Corps at Parris Island each year

With the approximately 20,000 male recruits entering Parris Island each year, the saving is estimated to be approximately \$4,900,840 per year.

It must be kept in mind, that not all attrition is undesirable from the organization's perspective. This also assumes that the recruits dropped out at the end of recruit training. Since most attrition occurs during the first two months, a more realistic figure would be less than the above. However, at the end of the first year of enlistment, the organization has invested approximately \$11,227 (Huck & Midlam, Note 2) in each male recruit. Multiply this over a number of years and include the female recruits as well as the training base on the West Coast, and the savings could be increased. This is especially true when considering that the total incremental cost to the Marine Corps was only a few thousand dollars because the RJP was produced with existing equipment and personnel. With the reduction in turnover during the first year, it is clear that the RJP was cost effective.

The present study also seems to have aided performance. It is not possible to put a dollar figure on the

improvement in performance, but if RJP's help enhance the benefits of training, the major mission of recruit training, then it certainly is worth trying.

Even if the RJP is unable to do any of the above, organizations may have a moral obligation to let new and potential applicants know what is going to be required of them on the job and what they will receive in return. This should enhance feelings of trust and honesty toward the organization which may aid the socialization process by presenting a favorable climate to the newcomer. This impact may not be as great if the RJP is given after entry. However, the recruit probably realizes that the organization does not have to take the time and expense involved to show the newcomer what is about to happen once the job is accepted.

Conclusion

Although much more research is needed in the areas described in this section, RJP's do seem to have an important place in the socialization of newcomers to organizations. The possible reduction in turnover and improvement in performance at a rather low cost is a small risk to take. We believe that showing the RJP prior to job acceptance does

increase the risk for some organizations, but the payoffs may be even higher by not training someone who is going to leave anyway. The potential to present a favorable climate to newcomers is a strong plus for RJP's. If for no other reason, organizations should at least attempt RJP's on moral grounds. Organizations hiring many newcomers who are entering their first job have an even greater obligation to help the newcomer adjust as quickly and as painlessly as possible.

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