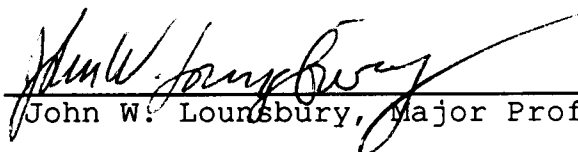


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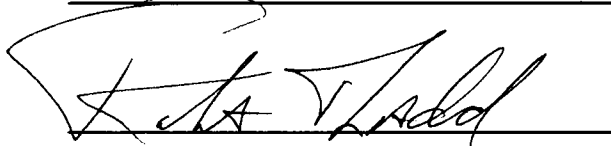
I am submitting herewith a dissertation written by Warren Scott Bobrow entitled "An Investigation of the Effects of Employment Testing on Self-Concept, Attitudes Towards Testing, Job Involvement, Organizational Commitment and Life Satisfaction." I have examined the final copy of this dissertation for form and content, and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Industrial and Organizational Psychology.


John W. Lounsbury, Major Professor

We have read this dissertation
and recommend its acceptance:




Michael E. Rush



Accepted for the Council


Vice Provost and
Dean of the Graduate School

AN INVESTIGATION OF THE EFFECTS OF EMPLOYMENT TESTING ON
SELF-CONCEPT, ATTITUDES TOWARDS TESTING, JOB INVOLVEMENT
ORGANIZATIONAL COMMITMENT AND LIFE SATISFACTION

A Dissertation

Presented for the

Doctor of Philosophy Degree

- The University of Tennessee, Knoxville

Warren Scott Bobrow

May 1989

DEDICATION

To my parents, Richard and Ida Bobrow. I will always be grateful for the roots, wings and love they have given to me.

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ABSTRACT

This study examined the relationship between the outcome of a pre-employment test and an individual's self-concept, attitudes towards testing, job involvement, organizational commitment and life satisfaction. Previous research had not investigated the effects of the employment decision based upon the results of a pre-employment test. One objective of this study was to apply a model of educational testing to an industrial setting. Another aim of this study was to investigate the effects of time since testing on the relationships mentioned above. Racial and gender differences were also investigated.

Participants were 143 employees of a national apparel manufacturer. Data were collected via a survey questionnaire which measured self-concept, attitudes towards testing, job involvement, organizational commitment, and life satisfaction. It also assessed the participants' expectancies about their test performance, their perceived instrumentalities concerning the promotion and their perceived valence of the rewards associated with getting a promotion.

Analysis of variance, multiple regression and structural equations techniques were used to test the hypotheses. Results indicated significant relationships between test outcome and attitudes towards testing. No

other significant relationships were found. Theoretical and practical implications are discussed.

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CHAPTER 1

INTRODUCTION

The use of mental ability tests to classify individuals is not new. In 1904, Binet was asked to classify French school children based upon their mental abilities. Later, Terman's version of Binet's test (Stanford-Binet) became the assessment instrument of choice for the classification of children in the U.S. (Cronbach, 1984). The use of mental ability tests for adults began in earnest with the development of the Army Alpha and Army Beta for World War I. With the extensive use of testing in the military, there was an implicit promise made to take the technology of personnel testing from the military and apply it to industrial settings (Ghiselli, 1966).

Today, personnel testing in U. S. industry is a widespread practice. The prominence of personnel testing may be for utility reasons in that selection programs with moderate validity can lead to large increases in productivity (cf. Schmidt, Hunter, McKenzie & Muldrow, 1979). Another reason for the popularity of the use of pre-employment tests may also be philosophical in that, in the U.S., there is a premium put on gaining rewards through ability, and pre-employment tests are seen as a way to give jobs to those with the most ability (cf. Gardner, 1984).

However, despite the prominence of pre-employment testing, it has historically been a controversial area of psychology.

Societal concerns about employment testing have been intertwined with general test usage for a variety of purposes in America. Haney (1981) has reviewed the "long and sometimes turbulent history of social concern" (p. 1021) over testing in the U. S., from the late 1800's to the 1980's. He reviews several historical outcroppings of controversy and public attention, such as the advent of intelligence testing in the 1920's, the proliferations of standardized testing in the 1930's, the identification of academically promising students as well as the challenges to personality testing in the 1960's, the IQ debate of the early 1970's, and more recent concerns, such as truth-in-testing.

Employment testing became popular in the late 1950's and 1960's, as did criticisms of testing (e.g., Harrington, 1959; Hoffman, 1962; Amrine, 1965; Gallagher, 1965). One basis for these criticisms stemmed from the perception that employment testing was an impersonal way to select people for jobs, and that psychological tests could not tap the dimensions which were important to job performance. Another criticism of testing was that the use of psychological tests (personality tests in particular, such as the MMPI) could be seen as an invasion of privacy (cf. Hoffman, 1962; Amrine,

1965). In rebuttal, Gardner (1962, 1984) argued that if U.S. society views itself as one which rewards competence, then employment testing is essential to ensuring that the most skilled/ knowledgeable be allowed to utilize their abilities. Curiously, after the U. S. Senate hearings on the use of personality tests in selecting government personnel (Amrine, 1965), much of the public controversy surrounding employment testing subsided until the late 1960's and early 1970's.

The controversy resumed, however, with the Civil Rights Act of 1964 and the landmark Griggs v. Duke Power (1971) decision. The ensuing debate revolved around the effects of employment testing on minority groups. This debate has centered on whether tests unfairly discriminate against minority groups (Cronbach, 1973) and whether tests are more valid for whites than minority groups (Bohem, 1972; Schmidt, Berner & Hunter, 1973). Despite the scientific evidence presented to the contrary (cf. Jensen, 1980), there still exists a good deal of public sentiment that tests unfairly discriminate against minorities. This sentiment is evidenced by a recent study which found that nearly one-third of those asked felt that tests "...discriminate against minority group members (like females and Blacks)" (Lounsbury, Bobrow, & Jensen, 1988). However, despite the arguments against using pre-employment tests, their use continues.

As an example of how common pre-employment testing is, a recent American Society of Personnel Administrators (1986) survey found that 88% of the personnel managers who responded to a survey reported using use some sort of testing for selection or placement purposes. The survey responses also indicated that employment testing appears to be on the rise, as shown by the more than 50% of respondents who indicated that they anticipated increasing the amount of testing they did in their companies. Of these, 35% reported that they anticipated increasing their use of tests for managerial/ supervisory skills and 25% anticipated increases in "psychological/personality" testing. Also, 41% of the respondents reported that their firm was doing more testing new than five years ago.

Another study done by the Bureau of National Affairs (1983) surveyed 437 manufacturing firms, nonmanufacturing businesses and the nonbusiness sector about their use of pre-employment tests. Seventy-five percent of the companies which responded reported using some sort of work-sample test for selecting applicants who were not currently employed by them. Forty percent of the responding companies reported using work sample tests for promotion purposes. Twenty percent of the responding companies reported using mental ability tests to hire applicants not currently employed by the responding company. Ten percent of the responding compa-

companies reported using mental ability tests for promotion. Nine percent of the responding companies reported using personality assessments to hire applicants they did not currently employ. Finally, four percent of the responding companies reported using personality tests for promotion.

Despite such extensive discussions and debates about the philosophical and societal value of testing, and the current widespread use of pre-employment tests, there has been very little research on the effects of employment testing and the employment decisions based on the results of the test on the individuals who take them and whether the effects of testing persist over time. Studies in educational testing have show that students who do well on standardized educational tests, and are placed in more advanced classes as a result of their test performance, experience more positive outcomes, such as increases in self-concept and higher future school performance than those students who do not perform well on tests or are not placed in advanced classes (Burns, 1979). These findings of the effects of testing on school children, point out that the effects of an employment decision based on an individual's pre-employment test results is a legitimate question. This question has not been considered in any systematic fashion by Industrial/Organizational psychologists.

The present study was designed to explore the

relationships between the results of a pre-employment test and the subsequent decision based upon the test (which collectively will be referred to as the test outcome of a pre-employment test) on the individual's self-concept, attitudes towards the organization which sponsored the test, and attitudes towards one's life. The study was also designed to investigate the temporal stability of any of the relationships that may be found.

CHAPTER 2

REVIEW OF THE LITERATURE

Attitudes Towards Testing

Employment testing is a salient topic of concern in the public, professional and private sectors. Despite the possible consequences the test outcome may have for an individual's career, an investigation of an attitudes toward testing construct, let alone the development of a scale to measure the construct, has not been a subject of much study. In one of the few empirical studies on the perceptions of tests and attitudes regarding testing, Fiske (1965) investigated how the test-taker views testing. Respondents to a national survey were asked to evaluate the worth of different types of tests with respondents also being given two simulated tests under either a purported job-related or research-related context. The percentage of respondents who rated the worth of the tests as "Very good" or "Fairly Good" ranged from 86% for tests of aptitudes and abilities, 79% for tests of "likes and dislikes", 53% for tests of sociability, and 48% for tests designed to measure personal problems. While no differences were observed between male and female respondents, Fiske found that "The less educated tend to evaluate tests as very good or very poor while those

with the most education give the qualified judgments of fairly good or fairly poor" (p. 295). Overall, Fiske concluded that people manifested "a wide variety of reactions to tests and to being tested" (p. 295).

In an attempt to standardize a measure of attitudes towards testing, Cramer and Slakter (1968) developed and validated a true Thorndike scale to assess attitudes toward school aptitude testing in a sample of various "known-groups" (Crano & Brewer, 1973). The "known groups" included students in a testing and measurement class, school board members, and students in an English class. The scale was also validated on undergraduates playing the roles of a testing company president or author-critic. The study suffered from small sample sizes (some of the groups tested had sample sizes as low as 9) and from some questionable methodology (that is students who role played testing company presidents or author-critics and then filled out a survey about testing may have, in effect, in a test of stereotypes of the occupations rather than in a test of different attitudes towards testing). With these considerations in mind, however, they found that people who use tests, and those who played the roles of those developing tests, did score higher on the scale than those who were not as involved in testing, or were playing non-testing roles. The researchers concluded from these results that they had developed an adequate scale of attitudes

towards testing.

Tesser and Leidy (1967) surveyed attitudes toward psychological testing among high school students. They found that an overwhelming majority of the sample endorsed such "pro-testing" items as "In general, it is the people who do poorly on tests who are against testing..." (81% endorsing) and "....tests are equally fair to all racial groups" (78% agreeing). But a majority of the sample also agreed with such anti-testing statements as "A man's thoughts are his own and should not be measured".

Coulaud, Etheve, and Hamard (1972-1973) studied general attitudes toward employment testing among 148 employees of various companies in France. Although they did not investigate the factorial basis of such attitudes, nor did they present psychometric data on their instrument, they did find that a measure of attitudes toward testing was positively related to the respondent's having previously taken tests, the respondent's intelligence, and knowledge about the content of the test s/he was taking. No significant differences were found as a function of age or job level.

More recently, Lerner (1986) reviewed data from 10 opinion surveys dealing with public attitudes toward standardized educational testing. In general, global attitudes toward testing were found to be quite favorable.

For example, Lerner cites a 1979 U. S. based Gallup poll finding that 81% of the respondents thought that standardized tests were "very useful" or "somewhat useful". Other Gallup poll findings indicated that such attitudes did not vary as a function of sex or minority group status.

At least one study has been directed toward the special question of computer-based intelligence testing. Hedl, O'Neil, and Hansen (1973) manipulated test conditions using a sample of college students and found that computerized intelligence testing led to significantly higher levels of state anxiety and less favorable attitudes than did examiner-based testing. Unfortunately, the authors provided no description of the attitude scales.

One study examined the general issue of invasion of the applicant's privacy during the selection process. Rosenbaum (1973) surveyed 1392 job applicants in New York City and found a five-factor solution for attitudes toward invasion of privacy representing domains where privacy should or should not be invaded (i.e., family background, personal history, interests and values, financial data, and social adjustment). Female respondents were "more concerned than males about topics involving personal history data, interests and values, and social adjustment and were less concerned than males about topics involving the management of one's finances" (p. 336). Better educated respondents were more willing to respond to questions about personal

history data and interests and values.

Though these studies are suggestive of the variety of beliefs and attitudes regarding testing, the issue of attitudes towards employment testing has generally not been an issue of emphasis among researchers. Moreover, most of the previous studies did not examine the factor structure or otherwise attempted to reduce the dimensionality of "attitudes toward testing". As summarized by Nevo and Nevo (1986), very little is known about the attitudes and feelings of test-takers and "what little knowledge we do in fact possess, is unsystematic" (p. 127).

In a recent study specifically examining attitudes toward testing, Lounsbury, Bobrow and Jensen (1988) concluded that attitudes toward employment testing is a unidimensional construct invariant across gender, age, educational level or occupational subgroup. Although attitudes toward employment testing was not influenced by how many times respondents had taken employment tests (or whether they had taken any at all), attitudes toward employment testing appeared to be affected by procedural matters, such as the individual being provided with feedback of their results and validity information. People who reported receiving feedback and/or validity information about the test had more positive attitudes toward testing than those who did not receive feedback and/or validity

information. They interpreted these results as being consistent with the notion of "procedural justice" (Thibault & Walker, 1975; Tyler & Caine, 1981); i.e. people who believe they were treated fairly are generally satisfied regardless of whether the outcome is personally favorable or unfavorable. However, Lounsbury et al. did not specifically examine the relationship of attitudes toward testing as a function of the outcomes of pre-employment testing.

Self-Concept and Work

In general, industrial/organizational psychologists have not given much explicit attention to the construct of self-concept. Although cognitive, personality and developmental psychologists are concerned with self-concept, self-concept has been studied most by phenomenological psychologists (Burns, 1979).

The phenomenological approach to self-concept emphasizes that individual behavior is influenced not only by experience, but by the meaning of experience. Self-concept is developed and maintained through individual perceptions and interpretations the environment (Burns, 1979).

Rogers (1951) defined self-concept as "an organized configuration of perceptions of the self...composed of one's characteristics and abilities" (p.136). Rogers also felt that the self-concept was key in determining responses to

the environment. Kelly (1955) and Epstein (1973) also subscribed to the unitary view of self-concept.

Burns (1979) characterized self-concept as having three distinct components: how one views oneself, how one feels one is viewed by others and how one views one's ideal self. This tripartite theory of self-concept uses a global, open system model of the self, which allows for outside influences to affect an individual's self concept, such as work variables. This global view of self-concept is in contrast to Rogers' (1951) view in that Rogers depicted self-concept as being derived solely from within the individual, whereas Burns maintained that self-concept is derived both from within the person and from outside influences.

The possible effect of the job on self-image is illustrated in the results of a study by Mulford and Salisbury (1964) where 68% of a group of employed adults who responded to a survey answered the question "Who are you?" in terms of their occupation. More empirical support for the relationship between occupational variables and self-concept comes from Kohn and Schooler (1973) who demonstrated that job involvement and organizational commitment were significantly and positively correlated with self-concept. The results of these two studies suggest that the job is a salient part of people's self-concept.

One explanation of the link between self-concept and work may be found in Ridley's (1973) observation that people are socialized to view work as central to self-worth./ It follows that if an individual views work as being an important component of his/her self-concept, an employment testing situation could potentially have profound effects on an individual's self-concept. Specifically, negative test information may have an adverse impact on how one views himself or herself (e.g. as a successful person versus as an unsuccessful person) and can also affect how one feels he or she is viewed by others (e.g. competent versus incompetent).

Gardner (1962) noted that in a society such as ours where people are often sorted out according to their abilities, failing a test which reflects one's abilities is "a bitter pill for any man". This notion is supported by educational research which shows that placing children in special classes based upon their learning disabilities lowers their self concept (Andrews, 1966; Lawrence & Winschell, 1973).

In an organizational setting, passing a test battery can result in promotion and placement with other "bright" employees, and failing may mean that an individual will not progress beyond his or her present occupational level. If an individual defines himself or herself based on occupation, then any comment on one's competence on the job may be construed as a comment on one's competence as a

person. One implication which can be drawn from this scenario is that changes in a person's self-concept may be reflected in the person's level of job involvement.

Job Involvement

Job involvement research began as an extension of the ego-involvement research in both psychology (McGregor, 1944; Allport, 1947) and sociology (Hughes, 1958; Dubin, 1961). The psychological research focused on the conditions in the organization which lead to involvement. The sociological research emphasized the process by which the individual internalizes the organization's goals and values.

Lodahl and Kejner (1965) defined job involvement as a multidimensional construct consisting of how much a person psychologically identifies with his/her job, or how much a person's self-image is grounded in his/her job. The dimensions of involvement included the individual's socialization into the organization, the degree to which job performance affects self-concept and how much the person identifies his/her self-concept with the job. Lodahl and Kejner also specified that job involvement was not the same thing as job satisfaction, as they could, for example, depict people who were highly job involved, but not job satisfied, such as people in dangerous occupations and workaholics. Also, they differentiated job involvement from

central life interests (CLI) (Dubin, 1955) in that the CLI concept refers to a person's preferred activity environment, work or home, without addressing whether the person is more involved, or derives his/her self-concept from that sphere.

Lodahl and Kejner (1965) also developed the first measure of job involvement, the Job Involvement Questionnaire (JIQ). When validating the JIQ, they found the job involved person to be older, less considerate leaders, employed in highly interdependent jobs, and having high tenure. They found the consequences of high job involvement to be lower absenteeism and lower turnover.

Saleh and Hosek (1976) factor analyzed several scales of job involvement and found three factors of job involvement: 1) active participation in job, 2) Job as the CLI and 3) perception of job performance as central to one's self-concept. This conceptualization is very similar to that of Lodahl and Kejner (1965), with the exception of the inclusion of CLI. In fact, Weiner and Gechman (1977) found a .27 correlation between JI and CLI, which does not provide enough convergent validity evidence to say the constructs are the same, or provide enough discriminant validity to rule that the two constructs are completely independent. Rather, the two constructs are related, but not identical.

One of the major controversies in the job involvement literature is whether job involvement is a personality variable or a situational variable. Although in the past

job involvement has been conceptualized as a personality variable (Dubin, 1955; Lodahl, 1964; Hulin & Blood, 1968; Siegal, 1969; Hall & Mansfield, 1971) and as a situational variable (Vroom 1962; McGregor, 1960; Argyris, 1964; Blauner, 1964; Bass, 1965), more current thought views job involvement as an interaction between the individual and the environment (Lodahl & Kejner, 1965; Lawler & Hall, 1970; Farris, 1971; Wanous, 1974; Blau, 1987).

In the interactionist perspective, an individual's self-concept interacts with the organization's policies to contribute to a persons job involvement. Schlenker and Guteck (1987) provided anecdotal support for the notion that job involvement is an interactive phenomenon and that work loss lowers job involvement when they quoted a participant who had lost her job saying, "I feel diminished in my role and personality..." (p.290).

When Hall and Rabinowitz (1977) conducted the first major review of the job involvement literature, one of the issues they looked at was the personality-versus-situation question. They concluded that an individual's job involvement is a function of personality, situation and work variables, without any one being dominant over the others. They also observed that job involvement is both a cause and an effect of job behaviors. They concluded that further research needed to be done in investigating the process of

how a person becomes job involved.

Saal (1978), drawing on Hall and Rabinowitz's (1977) work, set out to describe the highly job involved person. His review presented a profile of a highly job involved person as being older, having a more interesting job with higher overall job satisfaction, higher achievement motivation and greater Protestant Work Ethic than less involved workers. Saal found the major consequence of high job involvement was lower absenteeism. He tested a variety of different performance measures, none of which correlated with job involvement. Using a multivariate approach, he concluded that job involvement, contrary to earlier conceptualizations (Dubin, 1955; Lodahl, 1964; Hulin & Blood, 1968; Siegal, 1969; Hall & Mansfield, 1971), is best explained by situational characteristics, such as job attributes, rather than by person variables, such as age and gender. The situational component slant is confirmed in a recent study which examined antecedent conditions to job involvement (Noe & Steffy, 1987) which found that performance feedback was correlated with increased job involvement.

Another controversy in the job involvement literature is whether job involvement is a non-specific attitude towards work in general, or whether it is a job specific attitude (Kanungo, 1982). Kanungo hypothesized that there is a difference between being work involved (defining one's

self-image through all work), and job involved (defining one's self-image within a particular job). This hypothesis was tested when Kanungo developed three different scaling versions of both job involvement questionnaires and a work involvement questionnaires and tested them using a multi-trait, multi-method matrix. The results indicated sufficient discriminant and convergent validity to confirm the hypothesis that there is a difference between a person's generalized work involvement and specific job involvement.

Organizational Commitment

Early work in organizational commitment described commitment as a behavioral phenomenon in which an individual becomes committed to an organization through his/her "side-bets", or investments in an organization (Becker, 1961). In other words, commitment was conceptualized as an attitude which evolves from a behavior. However, one problem with using Becker's behavioral definition of commitment is that the same behavior may represent different psychological states. For instance, if Becker's behavioral definition of commitment was used to explain why a person remained at an organization for a long period of time, we would conclude that the individual was committed to the organization. However, the individual may be staying at the organization because he/she does not have another viable employment

option, a reason which does not relate to his/her commitment to the organization. Partially as a result of this problem of using behavior to define psychological states, other researchers began to examine more psychological definitions of organizational commitment.

Etzioni (1961) developed a typology of organizational involvement which was based upon his general model of organizational compliance. Etzioni saw organizational involvement as consisting of three types: 1) Moral Involvement, where the individual has approved and internalized an organization's goals and values, 2) Calculative Involvement, an idea similar to Becker's (1961) where an individual looks at how much he/she has put into an organization and what s/he expects to receive from the organization and 3) Alienative Involvement, where the person feels compelled to stay with the organization through either force, or lack of alternative options and has a negative perception of the organization. Etzioni's typology is important because it moved the conceptualization of organizational commitment from a behavioral perspective to a psychological one. The result of this change in perspective lead to more theory building regarding organizational commitment, and its antecedents and consequences. Also, Etzioni was the first to posit that organizational commitment is a multi-dimensional construct, or at least commitment is formed from multi-dimensional inputs.

In an examination of Etzioni's (1961) multidimensional model, Penley and Gould (1988) tested 412 civil servants and found support for both alienative and moral commitment, as well as finding some evidence of the relative independence of the two constructs. They concluded that there are both instrumental (calculative) and affective (moral and alienative) forms of commitment.

Kanter (1968) followed the lead of Becker (1961) by continuing to do research on the behavioral formulation of organizational commitment. Kanter posited that psychological commitment emerged from behavioral requirements or initiation procedures of the organization. This conceptualization is based upon an extension from cognitive dissonance theory into effort justification (Aronson & Mills, 1959). Effort justification asserts that a difficult or embarrassing behavioral initiation into a group leads to more commitment than a not so difficult embarrassing initiation. When an individual goes through such an initiation in an organization and as a result becomes more committed, Kanter called the resulting behavioral commitment "continuance" commitment. Kanter also suggests that there is a "cohesion" commitment where individuals remain in the organization due the social relationships they have formed. A third type of commitment is identified as "control" which is similar to Etzioni's

(1961) moral commitment and speaks to identification with the organization's norms and values. However, in contrast to Etzioni's typology, Kanter views the three types as being very interrelated, and that organizations do use all three types to increase commitment (Mowday, Porter & Steers, 1982).

Brown (1969) investigated organizational involvement. He defined organizational involvement as how much individuals identified with the organization, with the conditions of involvement including whether they saw the organization being in a position to provide them achievement opportunities, whether they felt they had any power within the organization, and whether they were only trying to identify with one organization. Identification was then said to lead to "symbolic motivation" states in which a person would want to put forth effort towards the organization. While Brown's hypotheses were supported by the study, identification and motivation were not linked to any outcome measures, such as turnover and/or performance. However, it did contribute to an understanding of the psychology of commitment, as well as some of its antecedents.

Steers (1977) defined organizational commitment as "the relative strength of an individual's identification with and involvement in a particular organization" (p. 46). Given this definition, organizational commitment seems very

similar to job involvement. However, a major difference between the two constructs lies in the referents of the two constructs (Blau, 1987). In job involvement, the referent is the individual's job, while in organizational commitment, the referent is the organization. However, the specificity of the referent to which the person is committed has become a recent concern in organizational commitment research (Riechers, 1985).

Riechers (1986) examined various constituencies to which an individual may be committed (i.e., top management, customers, unions and/or the public at large). She found that individuals do have different levels of commitment towards different referents, such as the job, middle management, top management and the organization as a whole. She also found that the Organizational Commitment Questionnaire (Mowday, Porter & Steers, 1979) was a better predictor of commitment to top management than other referents.

Steers (1977) also developed a conceptual framework of organizational commitment. He proposed that organizational commitment developed through personal characteristics (such as age and need achievement), job characteristics (such as task identity and feedback), and work experience variables (such as group attitudes and personal import). Steers also postulated that behaviors such as desire to remain,

attendance, and job performance were consequences of the organizational commitment attitude.

Mowday, Porter and Steers (1979) took an attitudinal view of organizational commitment. This attitudinal orientation derived from work by Sheldon (1971), Hall, Schneider and Nygren (1970) as well as the work by Steers (1977). Mowday et al. (1979) submitted that attitudinal commitment arises when an individual identifies with a particular organization, and the goals and values of that particular organization and wants to remain with the organization to help it to meet its goals. Important to this definition is that organizational commitment is not seen as a global attitude which is constant across situations. Rather, organizational commitment is environmentally specific to the particular organization.

Using the attitudinal orientation, Mowday et al. (1979) developed the Organizational Commitment Questionnaire (OCQ) based upon 2563 employees in various occupations. They found adequate reliability for the instrument, as well as convergent validity across samples and divergent validity across measures of different job attitudes.

Using the OCQ, Mowday et al. (1979) then attempted to predict specific organizationally related behaviors with it. They found that the OCQ was able to consistently predict turnover and absenteeism, while finding mixed results in predicting performance. They also confirmed Steers' (1977)

proposition that tenure and age are antecedents of commitment. Again, we find a model which states that organizational commitment is an attitude with behavioral consequences. However, it must be addressed whether organizational commitment is conceptually an attitude or a behavior before embarking on a specific study.

At the attitudinal level, organizational commitment can be seen as three different factors: 1) Strong belief and acceptance of the organization's goals and values; 2) willingness to exert considerable effort on behalf of the organization and 3) a strong desire to maintain membership in the organization (Mowday, Porter & Steers, 1982). Behaviorally, organizational commitment can be seen as the effect that attitudes can have on behavior pertaining to identification, such as absenteeism and turnover, and vice versa (Mowday, et al., 1982). Consistent with most previous approaches, this study will treat organizational commitment as a psychological orientation or predisposed attitude rather than an overt behavior.

Life Satisfaction

A great deal of research has supported Goslin's (1963) implicit position that outcomes resulting from work events and experiences carry over into nonwork arenas (e.g. Parker, 1976; Kabonoff, 1980). Goslin points out that testing may

not only affect an individual's life within the organization sponsoring the test, but it may also affect an individual's personal life. In terms of employment testing, other potentially affected spheres could be family relations, life satisfaction and stress. This notion is supported by Iris and Barrett (1972), who found that job importance correlated positively with life satisfaction in two different samples. Also, Haavio-Mannila (1971) found that "status at work" was significantly correlated with overall life satisfaction in several samples of working men and women.

Other recent research linking work events with life satisfaction has shown that any type of work event may be considered a stressor, whether it is a job change or a demotion and that work events are significantly correlated with family events (Cooke & Rousseau, 1983). Cooke and Rousseau also conclude that even organizational reward systems (e.g. passing a test and receiving a job change) are potential stressors which can result in personal strain. Kohn and Schooler (1973) measured such variables as job involvement, organizational commitment and self-concept and concluded that the effects of "job on man are far from trivial" (p.97). Job involvement has also been found to be negatively correlated with marital adjustment (Ridley, 1973).

The intrusion of work attitudes into nonwork attitudes can also be interpreted in light of the "spillover"

hypothesis (Wilensky, 1960; Kabanoff, 1980). As applied to Goslin's (1963) model, the "spillover" hypothesis asserts that any psychological event from the job (be it positive or negative) may influence the person in his/her nonwork life. For example, if one passes an employment test and receives a promotion, this salutary reward may spill over into the person's nonwork life. This result may not only raise a person's self-concept, but may also benefit other facets of one's life, such as life satisfaction and family relationships.

Implications of the Literature Review

The literature reviewed above suggests that a) the outcome of a pre-employment test may affect an individual's self-concept; b) self-concept may be related to organizational commitment, job involvement and life satisfaction; and c) attitudes towards testing may moderate the relationship between the employment decision and self-concept.

The relationship between test outcome and self-concept may be seen as being moderated by attitudes towards testing. If an individual does not view the test as being valid or important, then, the results of the test should not have any effect on his/her self-concept because he/she will not see the test result as a true indicator of his/her ability or

aptitude. In essence, the test will not give individuals any valid information about themselves. On the other hand, if a person has a high attitude towards testing, then he/she will feel that the test provides valid information about themselves, and this information may affect his/her self-concept and/or attitude towards the test (Goslin, 1963).

Self-concept may be seen as directly affecting job involvement. If one's level of job involvement is a function of how much a person defines his/herself through his/her job, then, according to the person-environment fit model (Blau, 1987), any effect on either self-concept or job involvement should affect the other. Whereas some studies have examined job involvement from only an organizational standpoint by painting a "job involved person's profile" (e.g. Saal, 1978), and others have examined job involvement in relation to certain family outcomes (Ridley, 1973; Clark, Nye & Gecas, 1978). I am aware of no study which has examined the direct relationship between self-concept and job involvement as implied by Goslin (1963) and proposed by Blau (1987). Nor am I aware of any studies which examine the relationship between self-concept and other organizational variables, which may be affected by self-concept, such as organizational commitment.

The relationship between self-concept and organizational commitment can be anticipated by drawing on the notion that how we feel about others is a reflection of

how we feel about ourselves. Rosenberg (1965) concluded that "there is no qualitative difference in the characteristics of attitudes toward self, and attitudes toward soup, soap, cereal or suburbia". The extension of this argument is that one's self-concept is reflected on his/her attitudes toward other referents, in this case, the organization. If a person feels positively/negatively about him/herself after receiving feedback on a test, this affect may also be reflected in his/her attitudes toward the organization which sponsored the test. Buchanan's (1977) finding that self-image reinforcement is positively correlated with organizational commitment supports the contention that how one views oneself generalizes to one's attitudes toward other objects.

An *a priori* explanation for the positive relation between organizational commitment and test outcome is that people whose test results lead to a positive outcome may feel that the process which allowed them to get the job is an unbiased and equitable one, and that organizational justice has been allocated fairly (Leventhal, Karuza and Fry, 1980; Greenberg, 1987). This may engender positive affect toward the organization and result in more organizational commitment by the individual. Such a linkage is consistent with cognitive dissonance theory (Festinger, 1957), as well as Bateman and Strasser's (1984) finding that

receiving organizational rewards (e.g. promotion) are positively correlated with organizational commitment.

When considering the relationship between the test outcome and life satisfaction, the implication from the previously mentioned research on spillover is that work events, such as failing a test or receiving a promotion, do influence the individual outside of work. Accordingly, if we are to study the impact of test outcomes on the people who take the tests, we also need to examine the influence of test outcomes on the person's nonwork spheres, such as life satisfaction and self-concept.

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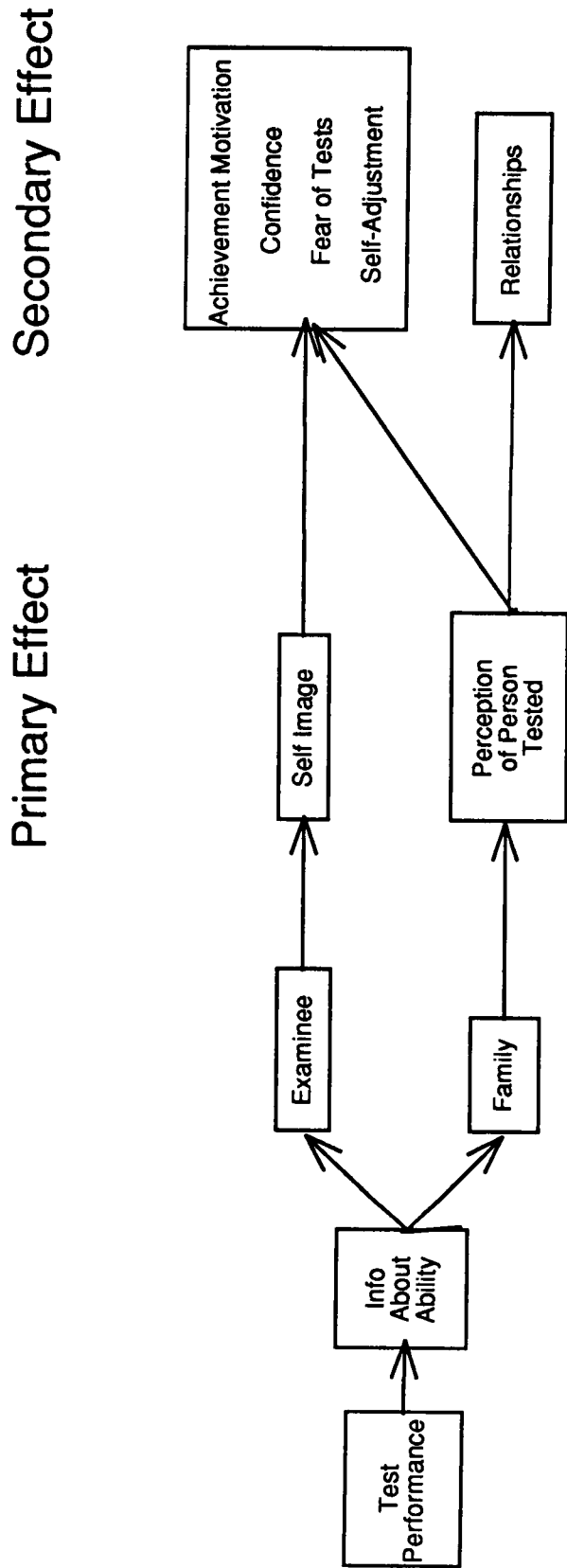
CHAPTER 3

GENERAL CONCEPTUAL MODEL

A Preliminary Model of the Effects of Testing

Goslin (1963) submitted a model of educational testing and its effects on the individuals who take them which may be useful when applied to industrial settings. This model was used as a basis to build the conceptual model for the present study. The major reason for using Goslin's (1963) model as a starting point in this research is that it examines the effects of tests within the testing context and outside of the testing context. Goslin's model is shown in Figure 3.1.

Goslin's (1963) model contends that test performance impacts the individual in several ways. In Goslin's model, test performance may affect the test-taker's self-image. Goslin labels this a primary effect. The primary effect is proposed to be the outcome of the individual's psychological scheme for dealing with the information. If the test results are congruent with the person's self-image, then the self-image is reinforced. If the test results are incongruous with the person's self-image, then the person's opinion about the test must change, or he/she must change his/her self-perception in order to make the results more



Effects moderated by beliefs of the examinee about the validity of the test.

Figure 3.1. Goslin's Model

congruous with his/her self-perception.

In the incongruous condition, Goslin posits that the individual's belief about the test's validity moderates the effect information about test performance has on self-image. In essence, if a person believes that a test is invalid, then incongruous test results may be discounted, and there may be little or no effect on self-image. If, however, the person believes that the test is valid, then the incongruity between the test results and self-image may be resolved by changing one's self-image or attitude towards testing.

According to Goslin, self-concept may affect the individual's achievement motivation, confidence, attitudes toward testing and his/her social adjustment. Goslin calls the impact of self-concept on these latter variables the secondary effect. The effect of test performance on the secondary variables is proposed to be contingent on the primary effect of test performance on self-concept. If a person's self-image is not changed by the test performance, then there may not be any subsequent effects on secondary variables. However, the secondary variables may be affected by other people who are informed about the person's test performance.

Goslin also proposes that test performance can influence the individual's family, with the primary effects being on the family's perceptions of the test taker's

abilities. As with the effects on the individual discussed above, the effect of test performance on the secondary effects is contingent on the primary effects. A final link in Goslin's model connects the primary family effects and the secondary individual effects. This link is important because it depicts a systems view of the effects of testing. When a person passes/fails a test, it impacts the family's view of the individual, which may in turn impact an individual's view of his/herself. So, even though the individual may be initially unaffected by his/her test results, family members who are informed about test results may influence the person's self-perception.

As can be seen above, Goslin made some explicit predictions regarding the effects of testing on the individuals who take them. However, to the best of my knowledge, there has not been an empirical test of Goslin's model.

In the present study, Goslin's (1963) model has been applied to the industrial setting. The primary effects of testing on self-concept with the moderating factor of attitudes towards the testing remains intact with one change: Although Goslin was concerned with the effects of test performance on the individual, this study will be concerned with the test outcome has on the individual, not the test performance per se. This conceptualization will be used because in an pre-employment testing scenario, there

are two issues at stake--whether the individual passes the test or not, and whether s/he receive a promotion or not.

This study will also utilize Goslin's (1963) conceptualization of secondary effects. Organizational commitment and job involvement will be used to measure secondary effects towards the organization and life satisfaction measures will be used to examine the effects of testing on the individual non-work life.

Design of the Research

In Figure 3.2, the design of the research is depicted with an overview model of the hypothesized relationships among variables included in the study. The independent and dependent variables are presented below.

Independent Variable

In Goslin's (1963) model, test performance served as the independent variable. The present study is derived in large part from Goslin's (1963) model with one important alteration: Test outcome is the independent variable in this study.

Goslin's (1963) model posits that the result of a test has either positive or negative effects on the people who take it. People who perform well on a test are said to experience more positive affect than those who do not do well on the test. The analog for such conditions in the

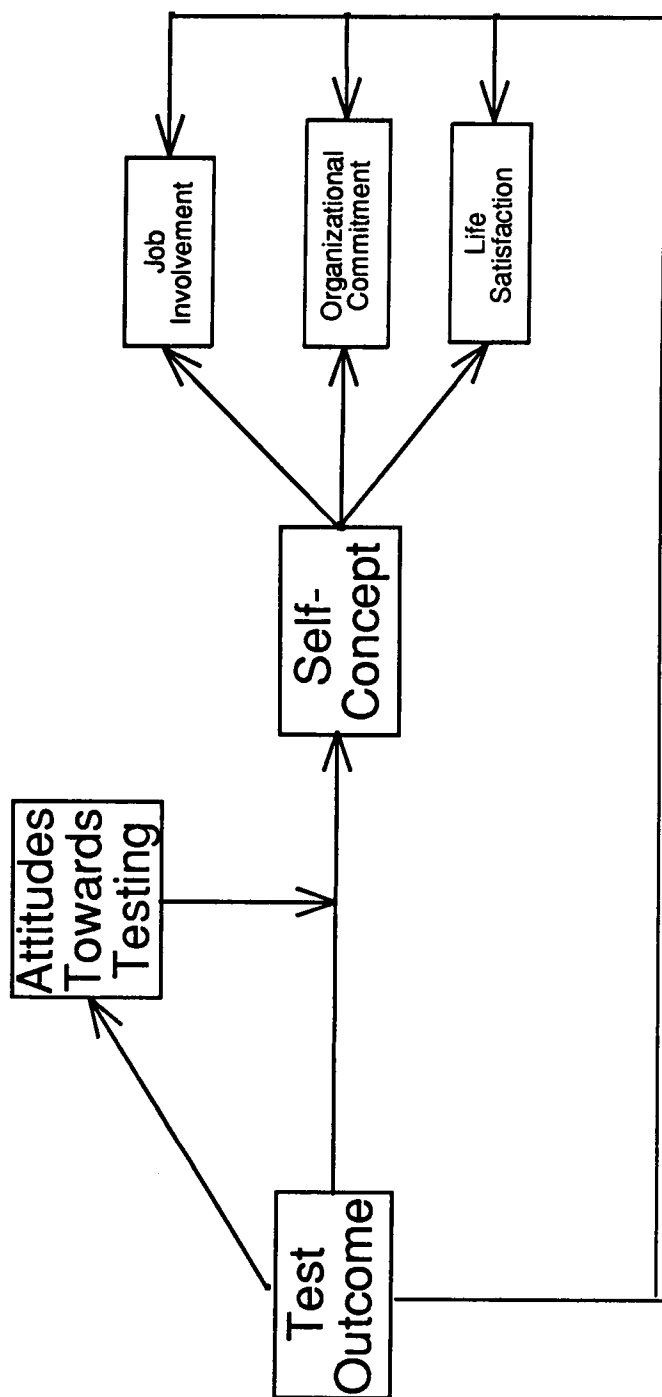


Figure 3.2. General Conceptual Model

present study are the outcomes of the employment decision. Specifically, there are three "known" outcome groups (Crano & Brewer, 1973) which emerged from the pre-employment decision, which, in turn, form the basis of categorization of the independent variable: 1) Those who failed the test battery and did not get the new job (which have been termed the "Hostile" group); 2) Those who passed the test battery but were not yet hired into the job (which have been termed the "Hopeful" group); 3) Those who passed the test battery and were hired into the job of sewing machine mechanic or marker maker (this group has been labeled the "Happy" group). This study was performed under the premise that being in the Hostile group was associated with the least positive testing experience since the people in this group did not gain any positive outcomes from taking the test. The Hopeful group was presumed to have a somewhat more positive testing experience since the in that group at least passed the test. The Happy group was presumed to have the most positive testing experience, since those people passed the test and received the promotion (i.e. a linear effect).

Self-Concept

As with Goslin's (1963) model, self-concept is a very important variable in this model. The model to be tested in this study suggests that test outcome will be related to an individual's self-concept, attitudes toward testing, job

involvement, organizational commitment and life satisfaction (Hypothesis 1). The model also suggests that the distal dependent measures of organizational commitment, job involvement and life satisfaction are related to self-concept and that self-concept mediates the relationship between test outcome and job involvement, organizational commitment and life satisfaction (Hypothesis 2). This hypothesis stems from Rosenberg's (1965) notion that one's self-concept is expressed in all other life spheres.

Attitudes Towards Testing

Attitudes toward testing is hypothesized to be an important variable in the nomological network under study because of the possibility that it moderates the relationship between test results and self-concept (Hypothesis 3). This hypothesis emanates from Goslin's (1963) idea that a person may be affected by test results only if the person feels that the test is an accurate indicator of what it purports to measure. However, Goslin (1963) also implies that, particularly in the condition where the test result is not congruent with the individual's self-concept, test performance can have a direct effect on attitudes towards testing. This implication will be addressed in Hypothesis 1.

Job Involvement, Organizational Commitment and Life Satisfaction

Job involvement, organizational commitment and life satisfaction are treated together in this section to emphasize that all three should be related to test outcome and/or self-concept. These variables are the analogs to Goslin's (1963) secondary effects. The hypotheses associated with these are based on the premise that the positive experience accompanying that follows a promotion based on one's test performance generalizes to both the work and nonwork spheres of a person's life.

Effects of Passing the Test, but not Receiving a Promotion

In this study, the Hopeful group is a rather peculiar one. In one sense, the people in the Hopeful group experienced a successful test outcome since they passed the test. On the other hand, they experienced a somewhat negative test outcome since they were denied the promotion. Due to design of the present research, the effects of not receiving a promotion on the Hopeful group can be examined by comparing them to the Happy group. An area of interest could be the perceived efficacy of the test for the Hopeful group versus the Happy group. One possible approach to examining the differences in the efficacy of the pre-employment test between the groups is by using an expectancy theory framework (Vroom, 1962; Porter & Lawler, 1968).

Vroom (1962) proposed that an individual extends a given level effort towards an activity if s/he believes that there is a high probability that the given level effort will lead to a given level of performance (expectancy), and there is a high probability that the given level of performance will lead to valent outcomes (instrumentality). An extension of this model (Porter & Lawler, 1968) submits that expectancies, instrumentalities and valences are affected by previous satisfaction with outcomes and the rewards associated with the outcomes. The link between the rewards and satisfaction is proposed to be moderated by the perceived equity of the rewards (Adams, 1965). Extending this argument to the present study, a reasonable question to ask is whether the outcome of a pre-employment test affects an individual's perception of the expectancies, instrumentalities and valences associated with passing a test and receiving a promotion.

A second approach to examining the differences between the Hopeful and Happy group is using cognitive dissonance theory (Festinger, 1957). Cognitive dissonance theory posits that when an individual feels psychologically uncomfortable, s/he is motivated to achieve consonance. The greater the dissonance, the greater the desire to achieve consonance. As applied to the present study, the people in the Hopeful group may experience dissonance knowing that they are qualified to receive a promotion but did not

receive the promotion. This may be referred to as exposure to dissonant information (Festinger, 1957), if it is assumed that the people who passed the test felt that they deserved the promotion.

In the present study, an individual may either discount the belief that s/he deserve the promotion, the power of passing the test in gaining him/her the promotion, or the power of the desired outcomes of the promotion in reducing dissonance. One would expect that the individual would downgrade the probability of receiving a promotion or the rewards before discounting his/her worth in order to maintain a sense of self-efficacy. For instance, they person may reflect back on the taking the test and think that s/he did not have a high expectancy of passing the test, let alone receiving a promotion if s/he passed the test. In order to restore consonance, an individual could also discount the perceived instrumentality of passing the test towards the promotion, or the valence of the rewards themselves.

This first research question addresses the issue of whether individuals in the Hopeful group perceive the intrinsic and extrinsic rewards (if any) associated with receiving a promotion as being valent, or whether an individual must also receive a promotion in order to regard the rewards as valent. A second question which could be

addressed is whether the Hopeful group views the test as being as instrumental towards intrinsic and extrinsic rewards as those in the Happy group. Thirdly, as a manipulation check, the recollected probability of passing the test and recollected probability that a promotion will be received if the test is passed can be assessed. It is expected that the two groups will not differ on their recollected probability of passing the test, but that the Happy group will report a higher probability of receiving the promotion when the test is passed than the Hopeful group.

Time Since Testing

In reviewing the literature and Goslin's (1963) model, the author did not come across any references to studies where organizational commitment, job involvement, life satisfaction or self-concept had been manipulated, and been studied in terms of how long any changes (positive or negative) in these attitudes persist. Given that in this study it is hypothesized that some of these attitudes will be changed, it would be of interest to examine how long these changes remain, or whether any alteration of these attitudes is temporary. If the results of a pre-employment test were long-term, a major implication would be that psychologists would be faced with the ethical dilemma of choosing between serving the organization which contracted

the validation, or the individual who takes the test who may be negatively affected in the long term by the results of such a test. This question will be examined in Research Question 2.

Hypotheses

Hypothesis 1

Participants in the Happy group will have

- a) a more positive self-concept,
- b) more positive attitudes toward testing,
- c) greater job involvement,
- d) greater organizational commitment, and
- e) higher life satisfaction.

than the Hopeful group which will have

- f) more positive self-concept,
- g) more positive attitudes toward testing,
- h) greater job involvement,
- i) greater organizational commitment, and
- j) higher life satisfaction.

than the Hostile group. This hypothesis, as discussed above, is a direct test of Goslin's (1963) model for the primary and secondary effects of testing.

Hypothesis 2

Self-concept mediates the relationship between pre-employment test outcome and job involvement, organizational commitment and life satisfaction. This follows from

Goslin's (1963) model which posited that the effects of testing directly impact self-concept and indirectly impact the secondary variables (job involvement, organizational commitment and life satisfaction) through self-concept.

Hypothesis 3

Attitudes towards testing will moderate the relationship between the employment decision based on the pre-employment test results and self-concept. This hypothesis is also direct adaptation of Goslin's (1963) proposition that an individual must accept the validity of a test before the outcome of the test will have any effect on his/her self-concept.

Research Question 1

A cognate research question which will be addressed is whether the people in the Happy group and the Hopeful group differ on their:

- a) Recollected expectancies of passing the test and getting a promotion if they passed the test.
- b) Perceived instrumentality of receiving a promotion differently toward obtaining extrinsic or intrinsic rewards or
- c) Perceived valence the intrinsic and extrinsic rewards of receiving the promotion.

Research Question 2

A second research question to be addressed is how long the effects suggested in Hypotheses 1 and 2 last. This research question will be assessed by examining the differences between the correlations of months since the participants took the pre-employment test and the major dependent measures (attitudes towards testing, job involvement, organizational commitment and life satisfaction) among the Hostile, Hopeful and Happy groups.

Post Hoc Analyses

Given that Mexican Americans will represent a large percentage of the sample in this study, the effect of ethnicity on the hypothesized relationships will be examined. Although there is no *a priori* hypotheses regarding the direction of these effects if they exist, it is important to be sensitive to differences related to ethnicity so that they can be dealt with forthrightly before generalizing the results of the study (Scarr, 1988).

As with ethnicity differences, this study does not have any *a priori* hypotheses regarding gender differences on the variables of interest. However, any differences will be examined and reported. As a caveat, replication of any significant results must be performed before any generalizations can be made (Denmark, Russo, Frieze, & Sechzer, 1988).

CHAPTER 4

METHODOLOGY

Design

The research design of this study is a quasi-experiment with a pretest group and 3 posttest groups. The sequencing of the events in the study was as follows: Participants took a pre-employment test, then were administered a survey (pretest), participants then were told whether they were qualified for the job and whether they received the promotion (test outcome), participants then received a second survey to fill out (posttest).

Participants

Both the pretest and posttest samples were drawn from a national apparel manufacturer which uses pre-employment test batteries to select individuals for the positions of sewing machine mechanic and marker maker. The author obtained the names of the people who had participated in the testing programs from the consulting company which validated and maintains the database for the testing program. These testing programs have been in use for over three years.

Most of the applicants are from within the company's ranks. These are mainly people looking for advancement from

positions such as sewing mechanic operator, cutter, presser, spreader, and maintenance. All applicants are told about the purpose of the testing, its validity vis-a-vis job performance, whether they passed or failed the battery and whether they received the promotion for which they applied. Applicants have the option of requesting more in depth feedback, such as percentile scores on the individual tests based upon company wide norms.

Participants in the testing program are told whether they passed the test, and whether they received the promotion usually within a week of taking the test battery. Typically, when more than one person passes the battery, whoever has the most seniority receives the promotion, however, there is evidence that this procedure has not always been followed in many of the plants. As a result, receiving the promotion is a two-step hurdle, first, the participant must pass the test, and then, if more than one person passes the test, some decision is made on who receives the promotion.

Three groups emerged from the two-hurdle design of the testing program: one being a group who had passed the tests and received the job, another being a group who had been rejected for a job on the basis of their test performance, and, since more than one person could pass the test battery for a given job with only one person receiving the promotion, there is a third group of people who passed the

tests but did not get the job. Thus, after testing, individuals fell into one of three "known groups" (Crano & Brewer, 1973), which form the basis of categorization for the present study: 1) Those who failed the test battery and did not get the new job (which have been termed the "Hostile" group); 2) Those who passed the test battery but were not promoted (which have been termed the "Hopeful" group); 3) Those who passed the test battery and were hired into the job of sewing machine mechanic or marker maker (this group has been labeled the "Happy" group). The independent variable will be referred to now on as test outcome.

Sample Demographics

The demographic representation of the pretest and posttest samples appear in Tables 4.1 and 4.2 respectively.

Procedure

Pretest

The units responsible for coordinating the sewing machine mechanic and marker maker selection program within the company were contacted and arrangements were made to give the pretest surveys to job applicants after they completed the test battery, including those who were not

Table 4.1 Summary of Pretest Demographic Variables.

	Frequency	Percent
Race		
White	9	21
Mexican	22	70
American		
Oriental	4	9
Age		
< 20	6	15
21-29	20	56
30-39	6	27
40-49	1	2
Sex		
Male	22	54
Female	19	46
Area		
Tennessee	3	9
New Mexico	10	23
Texas	29	68

Note: Not all columns add to 43 due too missing data.

Table 4.2 Summary of Posttest Demographic Variables by
Employment Decision Based on Test Performance.

	Happy	Hopeful	Hostile	Total
Race				
Black	5	0	0	5
White	44	19	25	89
Mexican	26	6	11	43
American				
Indian	2	0	0	2
Oriental	2	0	1	3
Age				
< 20	2	0	1	3
21-29	28	15	15	58
30-39	31	8	18	57
40-49	17	2	2	21
50-59	2	0	1	3
Sex				
Male	49	18	29	96
Female	31	7	8	46
Area				
Tennessee	27	12	12	51
Arkansas	6	1	2	9
Virginia	4	5	1	10
New Mexico	10	2	7	19
Texas	24	4	10	38
N. Carolina	11	1	4	16

Note: Not all columns add to 143 due too missing data.
Happy = Those who passed the test and received the
promotion, Hopeful = Those who passed the test but did not
receive the promotion, Hostile = Those who did not pass the
test.

currently employed by the company. Participants were assured that their responses on the questionnaire would be fully confidential and have no effect on the employment decision. To insure that the participants were informed as to the purpose of the study, they were asked to sign an informed consent for which was the first page of the survey (See Appendices A for the English version and M for the Spanish translation). Participants were also asked for background demographic information (See Appendices B for the English version and N for the Spanish translation). To emphasize that the company sponsoring the test would not see the participants' responses, and participants were asked to put his/her completed survey form into a separate envelope addressed to the author at the university instead of in the envelope addressed to the consulting firm where the tests were placed.

Posttest

The units responsible for coordinating the sewing machine mechanic and the marker maker selection programs within the company were contacted and arrangements were made to distribute surveys to all persons who had gone through the testing program during the last three years. Instructions to participants stressed the voluntary nature of participation. Participants received both a survey and a stamped envelope addressed to the author at the

university. Participants were asked to mail the surveys directly to the author at the university address, and not to give them to their supervisor or anyone at their company to mail. To insure that the participants were informed as to the purpose of the study, they were asked to sign an informed consent for which was the first page of the survey (See Appendices A for the English version and M for the Spanish translation). Participants were also asked for background information (See Appendices B for the English version and N for the Spanish translation).

Surveys were sent to 473 individuals, including those individuals who filled out pretest forms and were members of the company and 143 were returned, for a response rate of 30%. A comparison of the respondents versus non-respondents revealed that there were no significant differences between these two groups on age, race, or percent passing the test battery or employment decision based on test performance. The only observed significant differences was for gender (X^2 (1 df) = 11.53, $p < .01$), with 32% of the respondents being female versus 18% of the nonrespondents).

Measures

An issue in this research which should be dealt with first is that some of the respondents in this study were primarily Spanish speaking and many more were of Mexican

American descent. There are several concerns which need to be addressed when translating English measures for Spanish speaking participants: Use short, simple sentences; avoid metaphors; use specific terms; and avoid words which indicate vagueness (Brislin, Lonner & Thorndike, 1973). One way to address those issues, and arrive at a good, equivalent translation is to have bilinguals translate the measures from one language to the other (Gough & DiPalma, 1965; Triandis & Davis, 1965; Prince & Mombour, 1967, Brislin et al.). For this study, a bilingual Mexican American from southwest Texas who was employed by the company agreed to translate the pretest and posttest surveys and was remunerated for her efforts. By using a bilingual from the area where many of the potential Spanish-speakers of this study are located, it allows for an accurate, local translation that would be understood by the people who speak the "border" Spanish which is indigenous to that area, as opposed to "border" Spanish from another area of the country, or traditional Castilian Spanish.

Another concern is whether the attitude measures and aptitude measures are valid for both the Mexican American and Anglo American samples of this particular population. First, the differential validity of the aptitude battery for Mexican Americans and Anglo Americans will be addressed. Second, the appropriateness of translating the attitude

measures will be addressed.

The aptitude battery used for selecting sewing machine mechanics in this study has not demonstrated single group validity between Anglo Americans and Mexican Americans (Lounsbury & Kohntopp, 1985) and Anglo Americans and Canadians (Bobrow, Lounsbury, & Hoopes, 1988). The aptitude battery used for selecting marker makers also has not shown single group validity between Anglo Americans and Mexican Americans (Lounsbury & Hoopes, 1985). Thus, the batteries used to assess mechanical or marker maker aptitudes and abilities of the job applicants in this study do not predict job performance differentially for the Anglo American and Mexican American sub-groups.

Attitude scales present a different translation problem because of the possibility of different interpretations of the meanings of the scales between the Mexican American and Anglo American groups (Przeworski & Teune, 1970). However, several studies comparing Anglo Americans and Mexican Americans indicate that this may not be as large of a problem as suggested by Przeworski and Teune. Using an interest inventory, Montoya and DeBlassie (1985) did not find any differences in either means of scales or inter-correlations between scales between Mexican American and Anglo American college students. In a study of a personality instrument, Diaz, Noguerras and Draguos (1984) used "local" bilinguals to translate specific scales of the

instrument. The translated scales were found to have equal reliability and validity in predicting between clinical and normal groups.

More specific to this study, since all participants in this study are U.S. citizens, Carned and Mueller (1979) found no differences in the development and interpretation of self-concept between Mexican American and Anglo Americans. This supports the results found by Mueller and Leonetti (1974).

Given all of the above evidence regarding how well validity and reliability of scales can be maintained between English and Spanish scales, and that the scales were translated in a manner which has been shown by previous studies to maintain validity and reliability, I am confident of the equivalence of both the Spanish and English scales used in this study. However, it should be noted that only 6 Spanish posttest forms and no Spanish pretest forms were received, hence ruling out the possibility of performing special sub-group analyses based upon language due to lack of statistical power. However, sub-group analyses were performed between Anglo Americans and Mexican Americans to check for any significant group differences. Those results are presented in chapter 5, and discussed in chapter 6.

The measures of self-concept (Soares & Soares, 1985) job involvement (Lodahl & Kejner, 1965) and organizational

commitment (Mowday, Porter & Steers, 1979) used in this study are established measures which have been used in psychological and organizational research. (See Appendices E, I & J respectively for the English versions of these scales and Q, U, & V respectively for the Spanish translations of these scales). The life satisfaction scale was an exploratory measure. The psychometric properties of this instrument will be examined first.

Life Satisfaction

The life satisfaction measure was a composite of 30 items drawn from a pool of life satisfaction items developed by Andrews and Withey (1976) (See Appendix M for the English version and Appendix X for the Spanish version). Items were chosen to represent an assortment of different facet satisfactions, such as general life satisfaction, leisure satisfaction, job satisfaction and family satisfaction. Although one could argue *a priori* that there are 4 factors present in the measure, (general life satisfaction, leisure satisfaction, job satisfaction and family satisfaction) the psychometric results suggest that the scale measures a single factor due the high internal consistency of the items (Cronbach's $\alpha = .94$). Also, factor analytic techniques did not show an empirical factor structure due to the low item to respondent ratio, leading to the correlation matrix being un-invertable. A conclusion

which may be drawn is that the scale may represent 4 different, yet highly correlated factors. In terms of using the scale within Goslin's (1963) model, the model was not specific about any satisfaction outcomes. As a result, life satisfaction will be treated as a global, unitary concept for these analyses.

Self-Concept

Self-concept was measured using the Self-Perception Inventory (Soares & Soares, 1985). The scale consists of 34 bipolar adjectives on a four-point scale. Previous research shows the test-retest reliability and the internal consistency of the measures are adequate (Soares & Soares, 1985). This study used an abbreviated 20-item version (See Appendix E for the English version and Appendix R for the Spanish translation).

Organizational Commitment

Organizational commitment was assessed using the 9 item Organizational Commitment Questionnaire (OCQ) (Mowday, Porter & Steers, 1979). Since all of the participants will be taking tests as a result of an organizational policy, the referent used in the OCQ will be the entire organization. This specificity in identifying a referent is in response to Reichers' (1986) concerns that individual's may have multiple commitments in an organization. Test-retest

reliability and internal consistency of this measure are adequate (Mowday, Porter & Steers, 1982).

Job Involvement

Job involvement will be measured using an abbreviated 10 item version of the Job Involvement Questionnaire (Lodahl & Kejner, 1982). The internal consistency test-retest of this scale is adequate (Kanungo, 1982). Kanungo (1982) argued logically and empirically that job involvement and work involvement are separate constructs and should be measured as such. Bearing this research in mind all items used in this study used the job as a specific referent to avoid any confusion among participants whether their attitude towards work in general or their specific job was being assessed.

Attitudes Towards Testing

Attitudes towards testing was assessed using the Attitudes Towards Testing Scale (Lounsbury, Bobrow, & Jensen, 1988). This scale has shown a Cronbach's alpha of .84 (See Appendix F for the English version and Appendix S for the Spanish translation).

Expectancies

Expectancies were measured using 2 items, whether the person felt that they had passed the test, and the probability that they would get a promotion given that they

passed the test (See Appendices C and G respectively for English versions of the pretest and posttest measures, and Appendices P and T respectively for the Spanish translations of the pretest and posttest measures).

Instrumentalities and Valences

The perceived instrumentality of the test towards intrinsic and extrinsic outcomes and valences of these outcomes were assessed using a 8 item seven-point scale from the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England & Lofquist, 1976) with 4 items reflecting intrinsic outcomes and 4 items reflecting extrinsic outcomes. In the pretest measures, items were worded in terms of future instrumentalities and valences. In the posttest measures, items were worded in terms of reflection on passed instrumentalities and valences. In previous studies, the intrinsic outcome measures and the extrinsic outcome measures demonstrated adequate internal consistency and test-retest reliability (Weiss et al., 1976). A third scale consisting of 3 negative instrumentality items, indicating the probability of positive outcome not occurring due to failing the test was used (See Appendices C and G respectively for English versions of the pretest and posttest instrumentality measures, and Appendices P and T respectively for the Spanish translations of the pretest and posttest instrumentality measures. See Appendices D and H

respectively for English versions of the pretest and posttest valence measures, and Appendices Q and U respectively for the Spanish translations of the pretest and posttest valence measures).

Kanungo (1982) argued logically and empirically that job involvement and work involvement are separate constructs and should be measured as such. Bearing this in mind, all items used in this study used the job as a specific referent to avoid any confusion among participants whether their attitude towards work in general or their specific job was being assessed.

Analyses

- Group differences were assessed using ANOVA and ANCOVA techniques. For multiple regression analyses, test outcome was treated as a linear variable with the following coding: Hostile = 1, Hopeful = 2, Happy = 3. All of these analyses were performed on SPSS/PC+ (Norusis, 1985). The accuracy of the models proposed in the hypotheses were assessed using the LISREL VI program (Joreskog & Sorbom, 1986).

CHAPTER 5

RESULTS

In this chapter, the descriptive statistics and psychometric properties of the pretest and posttest variables are presented. Also, the results are reported for the tests of the hypotheses and research questions discussed in Chapter 3.

Descriptive Statistics of the Pretest and Posttest Measures

Table 5.1 contains the descriptive statistics of the major measures in the pretest. Table 5.2 contains the correlations among the dependent measures in the pretest. Table 5.3 contains the descriptive statistics of the dependent measures in the posttest. Table 5.4 contains the correlations among the dependent measures in the posttest. The response frequencies for each measure (English and Spanish) are presented with the English versions of the scales (Appendix A through Appendix M).

Since subjects were not randomly assigned to groups, in order to rule out many rival hypotheses for the obtained results, the pretest results were examined to insure that the eventual three groups were equivalent before the intervention of test outcome was introduced. Since there were applicants for two different jobs (mechanics and marker

Table 5.1 Descriptive Statistics of the Variables in the Pretest.

	Mean	Standard Deviation	Minimum	Maximum
Self-Concept	33.04	9.38	20.00	63.00
Attitudes Towards Testing	55.25	9.00	38.00	79.00
Extrinsic Instrumentalities	19.77	4.87	7.00	28.00
Intrinsic Instrumentalities	21.10	4.75	7.00	28.00
Negative Instrumentalities	10.12	3.90	3.00	17.00
Extrinsic Valences	29.87	4.58	19.00	35.00
Intrinsic Valences	31.30	4.58	18.00	35.00
Probability of Passing the Test	5.14	1.30	1	7
Probability of Receiving a Promotion if the Test is Passed	3.98	1.99	1	7

Note: n = 43.

Table 5.2 Intercorrelations of Variables in the Pretest.

	1	2	3	4	5	6	7	8	9
1. SELF	--								
2. ATT	-.36*	--							
3. INSEXT	-.35*	.10	--						
4. INSINT	-.31*	.09	.79***	--					
5. NEGINS	.32*	-.32*	-.34*	-.37**	--				
6. VALINT	-.53***	.29	.35*	.35*	-.27*	--			
7. VALEXT	-.59***	.22	.46**	.48**	-.44**	.85***	--		
8. PPASS	-.17	.14	.41**	.44**	-.05	.36*	.38**	--	
9. PPROMO	.07	.42***	.00	.04	-.04	.12	-.36*	.08	--

Note: $n = 43$. SELF = Self-Concept (negatively scored), ATT = Attitudes Towards Testing, INSEXT = Extrinsic Instrumentalities, INSINT = Intrinsic Instrumentalities, NEGINS = Negative Instrumentalities, VALINT = Intrinsic Valences, VALEXT = Extrinsic Valences, PPASS = Probability of Passing Test, PPROMO = Probability of getting a promotion if the test is passed. * $p < .05$ ** $p < .01$ *** $p < .001$, two-tailed.

Table 5.3 Descriptive Statistics of the Major Measures
in the Posttest.

Variable	Mean	Standard Deviation	Minimum	Maximum
Self-Concept	32.89	7.72	20.00	54.00
Attitudes Towards Testing	53.15	12.63	21.00	85.00
Job Involvement	39.74	12.59	13.00	63.00
Organizational Commitment	46.50	12.66	15.00	70.00
Life Satisfaction	162.96	19.60	89.95	205.00
Extrinsic Instrumentalities	20.76	5.13	4.00	28.00
Intrinsic Instrumentalities	22.03	5.15	4.00	28.00
Negative Instrumentalities	9.24	4.56	3.00	21.00
Intrinsic Valences	32.05	4.92	7.00	35.00
Extrinsic Valences	30.40	5.24	5.00	35.00
Probability of Passing the Test	5.32	1.66	1	7
Probability of Receiving the Promotion if the Test is Passed	5.32	1.66	1	7

Note: n = 143.

Table 5.4 Intercorrelations and Psychometric Properties
of Posttest Dependent Variables.

	1	2	3	4	5	6	7	8	9	10	11	12
1. SELF	.98											
2. ATT	-.07	.90										
3. OC	-.17*	.29***	.92									
4. JI	-.01	.18*	.67***	.86								
5. LSAT	-.19*	.23**	.48***	.22**	.94							
6. INSEXT	.07	.12	.25**	.21**	.12	.75						
7. INSINT	.06	.13	.10	.10	.01	.75***	.79					
8. NEGINS	-.05	.01	.17+	.09	.06	.05	.03	.79				
9. VALEXT	-.07	.25++	.22++	.00	.00	.41***	.39***	-.03	.81			
10. VALINT	-.10	.24++	.21+	.00	.00	.43***	.43***	-.06	.83***	.86		
11. PPASS	-.05	.30+++	.09	.05	.12	.21**	.23**	-.12	.25**	.33***	--	
12. PPROMO	-.13	.29+++	.24++	.17+	.28+	.11	.16*	-.12	.33***	.32***	.37***	--

Note: N=143. SELF = Self-Concept (negatively scored), ATT = Attitudes Towards Testing, JI = Job Involvement, OC = Organizational Commitment, LSAT = Life Satisfaction, INSEXT = Extrinsic Instrumentalities, INSINT = Intrinsic Instrumentalities, NEGINS = Negative Instrumentalities, VALINT = Intrinsic Valences, VALEXT = Extrinsic Valences, PPASS = Probability of Passing Test, PPROMO = Probability of getting a promotion if the test is passed. * $p < .05$ ** $p < .01$ *** $p < .001$, one-tailed. + $p < .05$, ++ $p < .01$, +++ $p < .001$, two-tailed.

makers) which had two different test batteries with different means and standard deviations to determine passing and failing on the test, raw scores on the aptitude tests for marker makers and sewing machine mechanics were standardized separately so that each distribution had a mean of 0 and standard deviation of 1. This allowed for combining test scores of the two groups when performing the analyses.

Analyses were performed in two ways. First, one-way ANOVAs were performed to check for overall group differences. The results of this analysis are presented in Table 5.5. Second, correlations were performed to see if there was a relationship between the measures of interest and the standardized scores on the pre-employment tests. The results of this analysis are in Table 5.6.

As demonstrated below, the groups did not differ on the dependent measures, except for probability of receiving a promotion if the test is passed, where Hopefuls were significantly different from both Happys and Hostiles. However, since the Hopefuls were higher than either of the other two groups, which were not significantly different from each other, this result is difficult to interpret meaningfully and may be a spurious relationship. Also, standardized test performance was not correlated with any of the dependent measures. It is thus concluded that the pretest groups were equivalent on the dependent measures

Table 5.5 Pretest One-way ANOVAs Across Eventual
Employment Decision.

Variable	Mean	Standard Deviation	F
Self-Concept	33.04	9.62	.41
Hostile	32.39	9.61	
Hopeful	34.42	9.96	
Happy	36.96	6.11	
Attitudes	55.25	9.00	.00
Towards Testing			
Hostile	55.24	9.53	
Hopeful	55.28	5.34	
Happy	55.33	12.66	
Extrinsic			.08
Instrumentalities	19.77	4.87	
Hostile	19.85	4.52	
Hopeful	19.85	4.52	
Happy	18.66	10.40	
Intrinsic			1.78
Instrumentalities	21.10	4.75	
Hostile	21.71	3.95	
Hopeful	20.14	6.14	
Happy	16.66	8.50	
Negative			.45
Instrumentalities	10.12	3.90	
Hostile	10.09	3.79	
Hopeful	9.42	5.02	
Happy	12.00	2.64	
Extrinsic Valences	29.87	4.58	.74
Hostile	30.30	4.68	
Hopeful	28.85	4.84	
Happy	27.41	2.18	
Extrinsic Valences	31.30	4.58	.62
Hostile	31.58	4.60	
Hopeful	29.57	5.38	
Happy	32.33	1.52	

Table 5.5 (continued).

Variable	Mean	Standard Deviation	F
Probability of Passing the Test	5.14	1.30	.96
Hostile	5.12	1.19	
Hopeful	5.57	.97	
Happy	4.33	2.88	
Probability of Receiving a Promotion if the Test is Passed	3.87	2.03	3.36*
Hostile	3.40	1.95	
Hopeful	5.29	1.25	
Happy	2.00	1.00	

Note: Hostile n = 33, Hopeful n = 7, Happy n = 3. Degrees of Freedom = (2,40). * $p < .05$

Table 5.6 Correlations Between Dependent Measures and Standardized Raw Scores in the Pretest.

	Standardized Raw Score
Self-Concept	.02
Attitudes Towards Testing	-.14
Extrinsic Instrumentalities	-.05
Intrinsic Instrumentalities	-.21
Negative Instrumentalities	-.09
Extrinsic Valences	.13
Intrinsic Valences	.17
Probability of Passing the Test	-.01
Probability of Receiving a Promotion if the Test is Passed	-.14

Note: n = 43. None of the correlations are significant at the .05 level, one-tailed. Standardized raw scores are the standardized scores on the pre-employment test for the marker makers and sewing machine mechanics.

and that any subsequent differences in group scores may have been due to the test outcome. One-way ANOVAs were then performed on the three posttest group and the pretest participants to assess any change from pretest to posttest. The results of this analysis are presented in Table 5.7.

Hypothesis Testing

Hypothesis 1.

Hypothesis 1 states that participants in the Happy group will have: a) higher self-concept, b) more positive attitudes toward testing, c) greater job involvement, d) greater organizational commitment and e) higher life satisfaction than those in the Hopeful group. Those in the Hopeful group were hypothesized to have: f) higher self-concept, g) more positive attitudes toward testing, h) greater job involvement, i) greater organizational commitment and j) higher life satisfaction than those in the Hostile group. Individual parts of the hypothesis will be confirmed if there is a significant mean difference between groups on a particular variable with Happys being higher than Hopefuls being higher than Hostiles.

To examine mean differences between individuals in the three test outcome groups (Happy, Hopeful, and Hostile), a one-way analysis of variance (ANOVA) was performed. Table 5.8 shows that, with the exception of attitudes towards

Table 5.7. One-way ANOVAs Between Hostile, Hopeful, Hostile, and Pretest Groups.

Variable	Mean	Standard Deviation	<i>F</i>	Bartlett-Box <i>F</i>
Self-Concept	32.95	8.12	.07	2.27
Hostile	32.66	8.37		
Hopeful	33.07	8.00		
Happy	33.38	6.11		
Pretest	33.04	9.38		
Attitudes				
Towards Testing	53.69	11.90	16.35***	1.14
Hostile	47.84	11.59		
Hopeful	58.40	10.66		
Happy	61.35	10.22		
Pretest	55.25	8.99		
Extrinsic				
Instrumentality	20.51	5.08	1.50	5.14**
Hostile	20.06	5.97		
Hopeful	21.64	4.13		
Happy	21.60	3.40		
Pretest	19.76	4.87		
Intrinsic				
Instrumentality	21.81	5.07	1.77	5.64***
Hostile	21.41	6.02		
Hopeful	23.76	3.34		
Happy	22.20	3.79		
Pretest	21.10	4.75		
Negative				
Instrumentality	9.44	4.43	1.93	3.02*
Hostile	9.89	5.12		
Hopeful	8.81	3.56		
Happy	8.10	3.67		
Pretest	10.11	3.90		
Extrinsic				
Valence	30.25	5.08	6.13***	16.38***
Hostile	28.84	6.11		
Hopeful	32.00	3.14		
Happy	32.56	2.63		
Pretest	29.86	4.58		

Table 5.7. (continued).

Variable	Mean	Standard Deviation	<i>F</i>	Bartlett-Box <i>F</i>
Intrinsic				
Valence	31.86	4.25	3.29*	11.78
Hostile	30.99	6.03		
Hopeful	32.92	2.72		
Happy	33.67	2.16		
Pretest	31.30	4.58		
Probability of Passing the				
Test	5.27	1.58	7.80***	6.54***
Hostile	4.79	1.84		
Hopeful	5.78	1.04		
Happy	6.13	1.10		
Pretest	5.13	1.30		
Probability of Receiving a Promotion if the Test is				
Passed	4.56	2.05	3.98**	2.70*
Hostile	4.42	2.26		
Hopeful	4.64	1.77		
Happy	5.48	1.50		
Pretest	3.97	1.99		

Note: Hostile $n = 80$, Hopeful $n = 25$, Happy $n = 37$, Pretest $n = 43$. Degrees of Freedom = (3, 181). Homogeneity of variance tested using the Bartlett-Box F test. * $p < .05$ ** $p < .01$, *** $p < .001$.

Table 5.8 Analysis of Variance by Posttest Group.

Variable	Mean	Standard Deviation	F	Homogeneity of Variance (F)
Self-Concept	32.92	7.74	.17	2.23
Hostile	32.67	8.38		
Hopeful	33.08	8.01		
Happy	33.38	6.12		
Attitudes Towards				
Testing	53.23	12.63	19.24***	0.38
Hostile	47.85	11.60		
Hopeful	58.40	10.66		
Happy	61.35	10.22		
Organizational				
Commitment	46.42	12.68	.13	2.35
Hostile	45.85	14.07		
Hopeful	48.55	10.39		
Happy	46.23	11.00		
Jqb Involvement	39.74	12.64	.36	4.64**
Hostile	40.59	14.46		
Hopeful	38.87	10.00		
Happy	38.51	9.79		
Life Satisfaction	163.10	19.60	.16	1.12
Hostile	162.00	21.06		
Hopeful	163.18	16.65		
Happy	165.44	18.38		

Note: $n = 142$. Degrees of freedom = (3,139). Homogeneity of Variance tested with Bartlett-Box F . Self-Concept is negatively scored. ** $p < .01$ *** $p < .001$.

testing, the means of the groups did not differ on the major dependent measures. A Student-Newman-Keuls *post hoc* test revealed that the Hostile group mean was significantly less positive attitudes towards testing than both the Hopeful group and Happy group means and that the Hopeful mean was significantly lower than the Happy mean. The relationship between test outcome and attitudes towards testing is shown in Figure 5.1. This result supports parts b) and g) of Hypothesis 1. There is no support for the other parts of Hypothesis 1.

To examine whether not getting passing the test and/or receiving the promotion led to a lowering of attitudes towards testing, or passing the test and/or receiving the promotion raised attitudes towards testing, a one-way ANOVA was performed using the Happy, Hopeful, Hostile groups along with the Pretest group. Table 5.9 shows that attitudes towards testing were affected by the employment decision based upon test performance. A Student-Newman-Keuls *post hoc* test showed that the Hostile group mean was significantly lower than the other 3 means ($p < .05$) and that the Hopeful group mean was significantly lower than the Happy group mean ($p < .05$).

Hypothesis 2.

The second hypothesis states that self-concept mediates the relationship between employment decision based on test

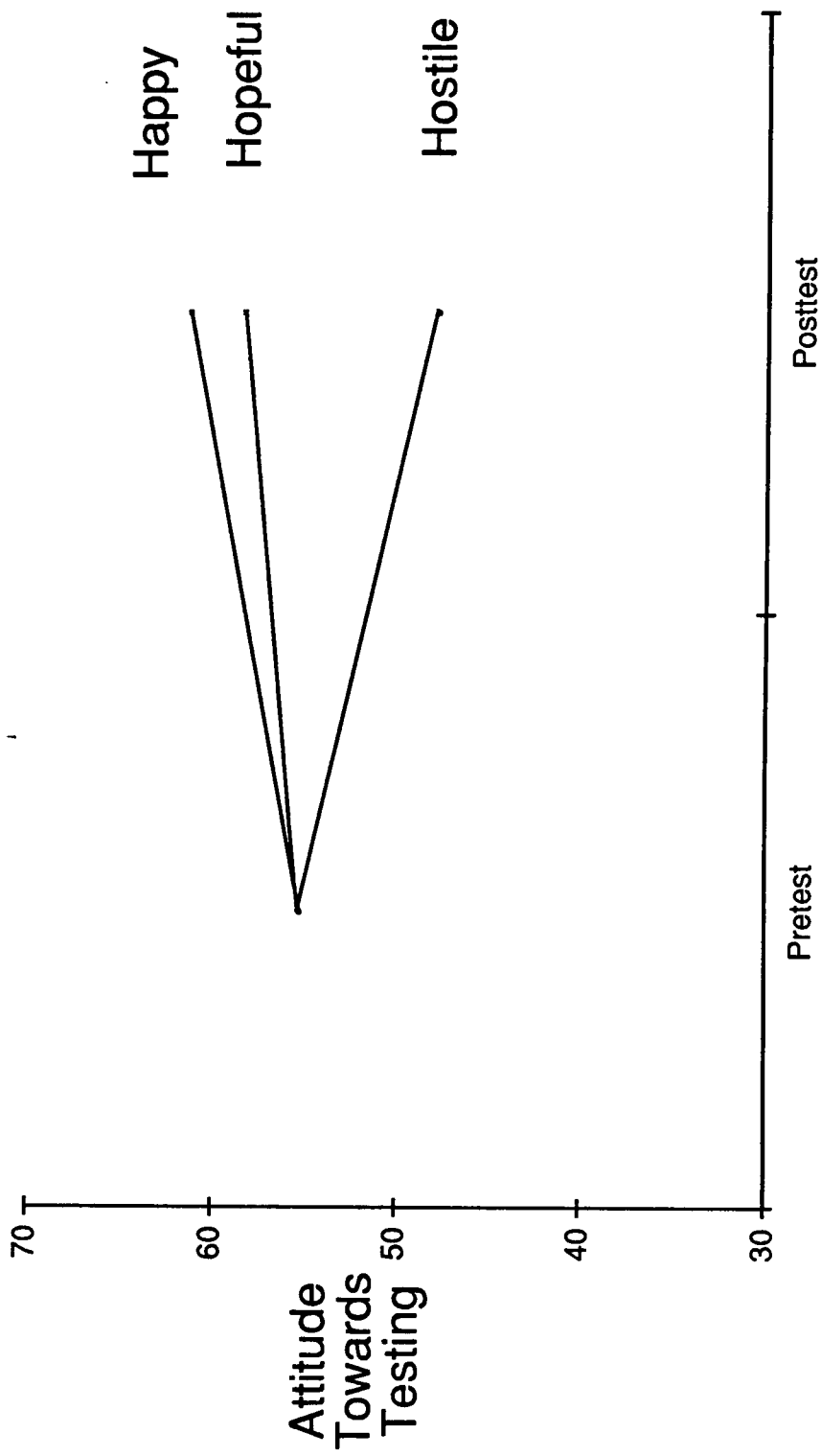


Figure 5.1. Attitudes Towards Testing by Test Outcome

Table 5.9 Comparisons Between Hostile, Hopeful, Happy and Pretest Groups on Attitudes Towards Testing.

Variable	Mean	Standard Deviation	F	Homogeneity of Variance (F)
Attitudes Towards Testing	53.69	11.90	16.35***	1.14
Hostile	47.85	11.60		
Hopeful	58.40	10.66		
Happy	61.35	10.22		
Pretest	55.25	8.99		

Note: Hostile n = 80, Hopeful n = 25, Happy N = 37, Pretest N = 43. Degrees of freedom = (3,181). Homogeneity of Variance tested using Bartlett-Box F. *** $p < .001$.

outcome. In general, support for a mediator variable (self-concept) occurs when an antecedent condition (test outcome) affects the consequences (job involvement, organizational commitment and life satisfaction) only indirectly through transmission of influence from the antecedent (test outcome) to the consequence(s) (job involvement, organizational commitment and life satisfaction) by the mediator variable (self-concept) (James & Brett, 1984). Hence, this hypothesis will be supported if 3 conditions occur: 1) People in the Happy group have greater job involvement, or greater organizational commitment or higher life satisfaction than those in the Hopeful group, and those in the Hopeful group have greater job involvement, or greater organizational commitment or higher life satisfaction than those in the Hostile group, 2) Job involvement, organizational commitment and life satisfaction variables are related to self-concept, 3) Job involvement, organizational commitment and life satisfaction are not related to test outcome after the effects of self-concept are factored out (James & Brett, 1984). As seen in Table 5.8, self-concept is not related to test outcome, nor is test outcome directly related to job involvement, organizational commitment or life satisfaction. Given these conditions, self-concept cannot mediate the relationships between test outcome and job involvement, organizational

commitment and life satisfaction. Therefore, Hypothesis 2 is rejected.

Hypothesis 3.

The third hypothesis states that attitudes towards testing moderates the relationship between test outcome and self-concept. To support this hypothesis, the relationship between the independent variable (test outcome) and the dependent variable (self-concept) must be a function of the level of the moderator variable (attitudes towards testing) (James & Brett, 1984). To test this hypothesis, the attitudes towards testing variable was blocked using median split, then a two-way ANOVA was performed using test outcome (A), attitudes toward testing (B) and the interaction terms ($\bar{A} \cdot B$) to predict self-concept. To support the hypothesis, the $A \cdot B$ would have to explain mean differences between cells after the main effects (A and B) are factored out (James & Brett, 1984). As shown in Table 5.10, the interaction term of attitudes toward testing and test outcome did not explain variance in self-concept across groups.

A second approach to testing whether attitudes towards testing moderates the relationship between test outcome and self-concept is to code test outcome as a variable (Hostile = 1, Hopeful = 2, Happy = 3) and use hierarchical regression techniques (Cohen & Cohen, 1983). In order to support the hypothesis that attitudes towards testing moderates the

Table 5.10 Two-way Analysis of Variance with Attitudes
Towards Testing and Test Outcome on Self-
Concept.

Variable	DF	F
Self-Concept		
Test Outcome (A)	2	.74
Attitudes Towards Testing (B)	1	2.30
Interaction Term (A*B)	2	1.36

Note: N = 142. None of the F tests are significant at the $p < .05$ level.

relationship between test outcome and self-concept, an interaction term of attitudes towards testing multiplied times test outcome would have to explain a significant amount of the variance in self-concept after both attitudes towards testing and test outcome have been entered into the regression equation. The results of the regression analysis are presented in Table 5.11.

As in the ANOVA approach, the results of the multiple regression analysis do not support the hypothesis that attitudes towards testing moderates the relationship between test outcome and self-concept. Given that the relationship between test outcome and self-concept was not a function of the level of attitudes towards testing in either the ANOVA or multiple regression approach, we may conclude that Hypothesis 3 is not supported.

Overall Model Testing

Although many of the above analyses can either partially confirm or partially disconfirm a model, only structural equation modeling can accurately test a complete model with multiple dependent variables such as the models presented here. This modeling is realized through the program LISREL (Ladd, 1988).

In this study, there are 3 possible models hypothesized. The first model depicts test outcome as directly affecting self-concept, attitudes towards testing,

Table 5.11. Multiple Regression Analysis with Attitudes Towards Testing and Test Outcome on Self-Concept.

Dependent Variable = Self-Concept

Variable	R	R ²	R ² Change	R ² F of Change	F of Equation
Test Outcome (A)	.00	.00	--	--	.98
Attitudes Towards Testing (B)	.05	.00	.00	.34	.17
Interaction Term (A x B)	.05	.00	.00	.00	.11

Note: n = 142. None of the *F* statistics are significant at the *p* < .05 level.

job involvement, organizational commitment and life satisfaction (See Figure 5.2).

The second relates self-concept to test outcome and job involvement, organizational commitment and life satisfaction, without test outcome being directly related to job involvement, organizational commitment and life satisfaction (See Figure 5.3).

The third model has attitudes towards testing moderating the relationship between test outcome and self-concept by way of an attitudes towards testing by self-concept interaction term, which is then related to job involvement, organizational commitment and life satisfaction (See Figure 5.4).

Given the strong effect test results had on attitudes towards testing, a fourth *post hoc* model, which has test results leading to attitudes towards testing, which then leads to job involvement, organizational commitment and life satisfaction is also presented (See Figure 5.5). These 4 competing models were then compared using structural equations modeling.

An assumption about the data had to be made before using the structural equations model. The assumption was that the relationship between Happy, Hopeful and Hostile groups was a linear one. As stated earlier, this assumption was made under the premise that the Hopefuls are in a more

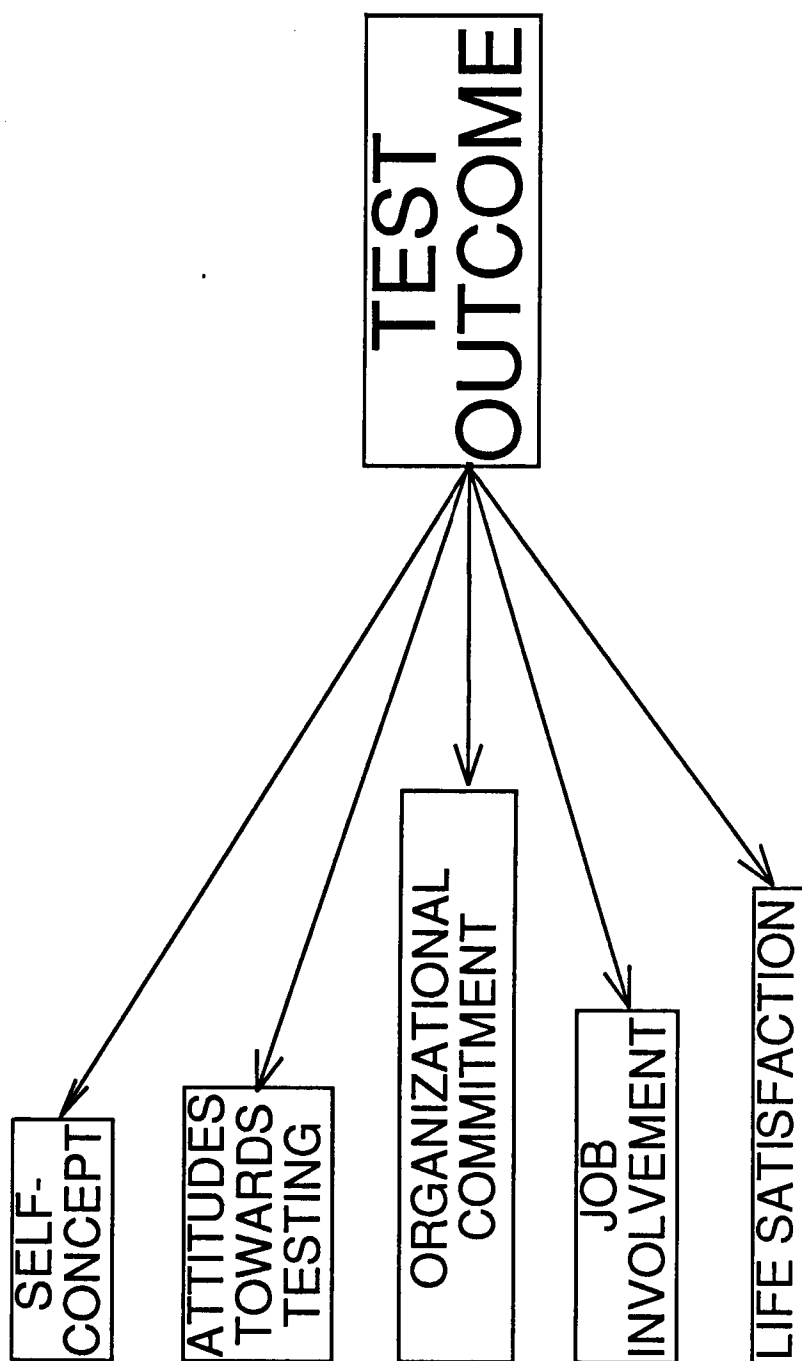


Figure 5.2. LISREL Model 1

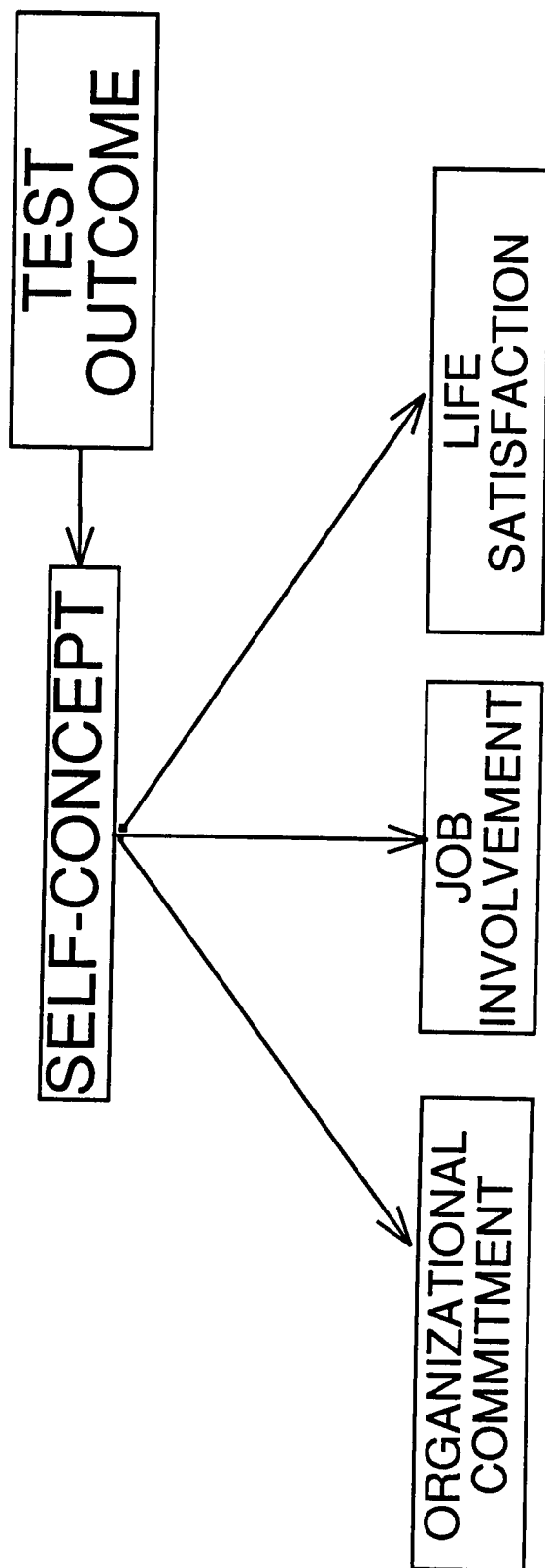


Figure 5.3. LISREL Model 2

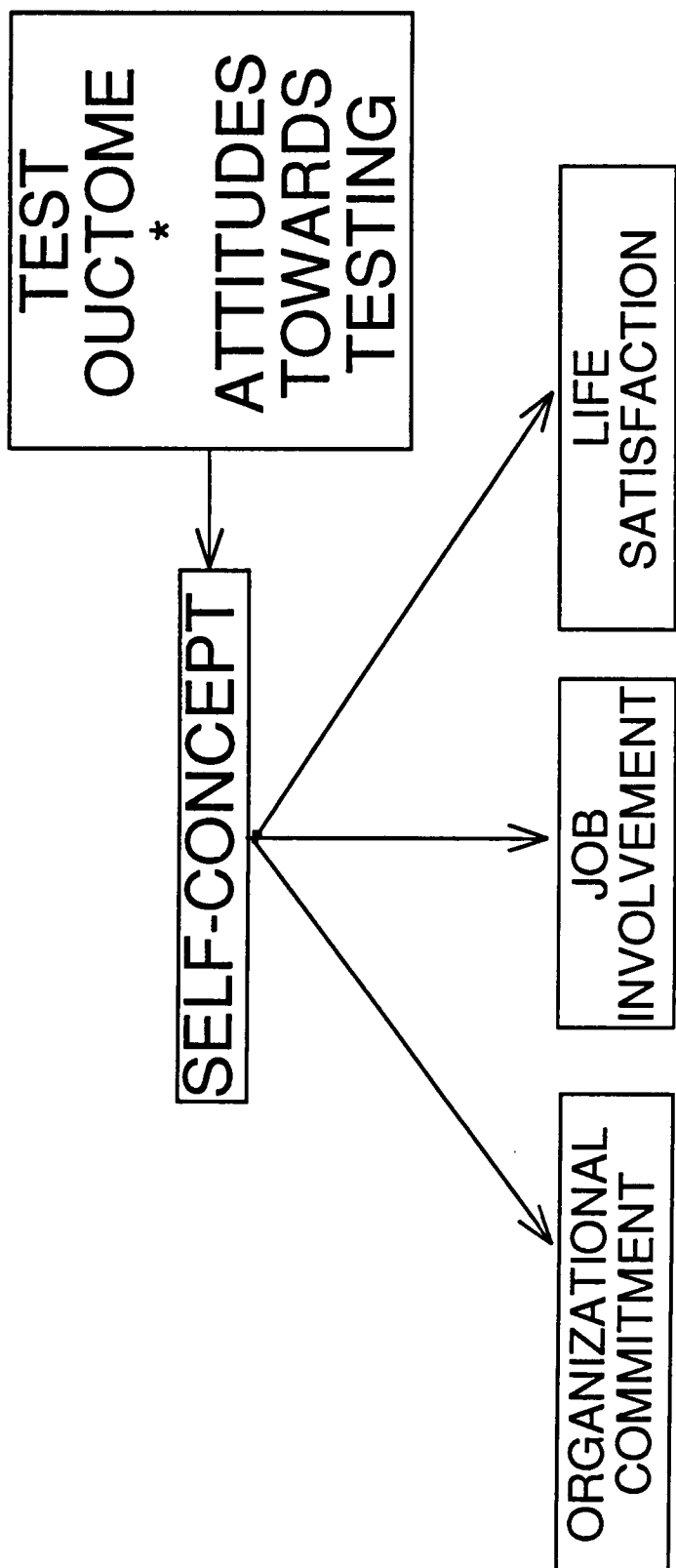


Figure 5.4. LISREL Model 3

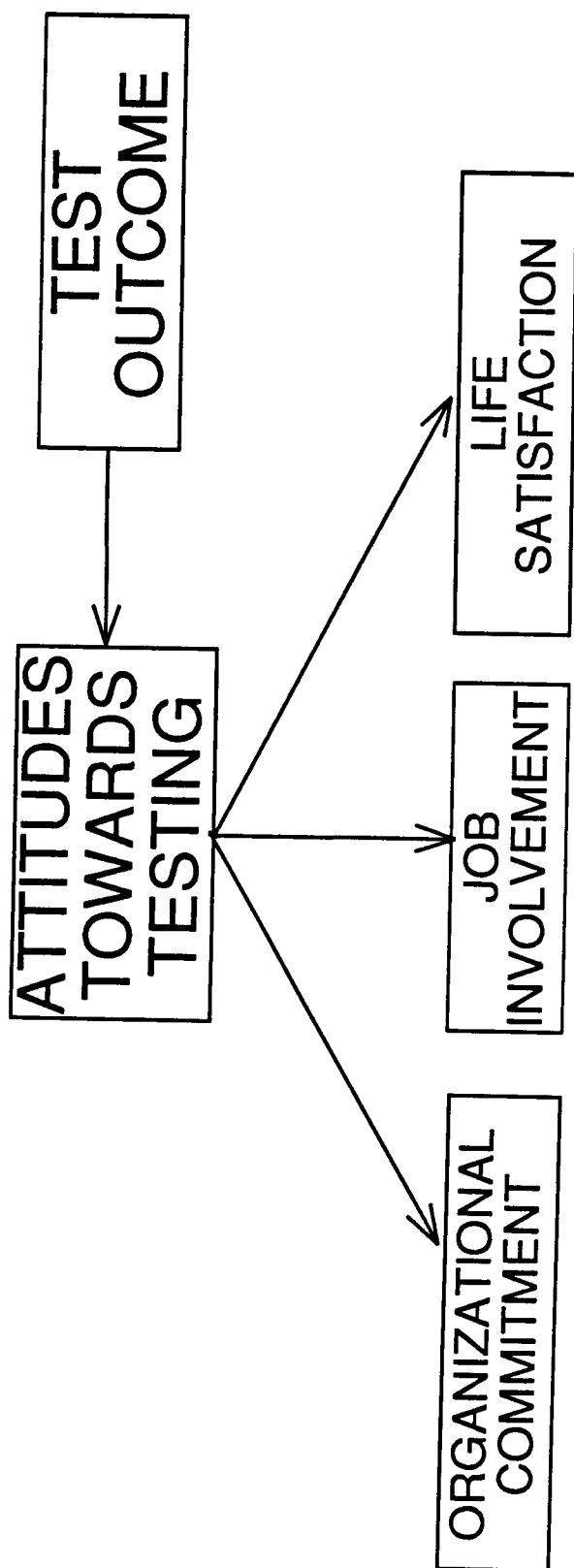


Figure 5.5. LISREL Model 4

positive state in terms of their job involvement, organization commitment and life satisfaction than the Hostiles, and the Happys are in a more positive state on those variables than the Hopefuls.

In order to test this structural equations model, several steps were taken. First, a 87 by 87 covariance matrix was formed using all of the manifest variables (items on the questionnaires). Using this matrix, the LISREL program was used to obtain factor score regressions for the 5 latent variables (attitudes towards testing, self-concept, job involvement, organizational commitment and life satisfaction). To obtain the latent variables so that they would be measured without error, the factor score regression for each manifest variable for every factor was added together to compute the final latent variable score. These latent variable scores for the 5 latent variables, plus the test outcome variable were then used to form a 6 by 6 covariance matrix to test the structural equations model. For Model 2 with the interaction term for attitudes towards testing and test outcome, the latent variables were multiplied by each other, with the caveat that moderating variables generally do not moderate continuously. All models were tested under conditions where the endogenous (Y) variables were not allowed to intercorrelate so that the causal effects of the latent variables would contribute more to the overall fit of the model. Given that the endogenous

variables would have the same intercorrelations for each model, this does not present any special problems. See Table 5.12 for results of the model comparison.

Although none of the models fit particularly well (usually a chi-square/df ratio of 4 is considered reasonable, [Joreskog & Sorbom, 1979]), this is not surprising since job involvement, organizational commitment and life satisfaction were constrained to not intercorrelate in order to conserve degrees of freedom so the models could be compared to each other. Models 2, 3 and 4 do not appear to fit the data any better than one another. However, Model 1 does appear to have the best fit among the four by the chi-square ratio. Comparing model 1 to the best fitting of the remaining models, say model 4, by subtracting the chi-square/df as a chi-square with 1 degree of freedom, we find that model 1 fits the data significantly better than even the best of the remaining models (chi-square = 4.31, $p < .05$). These results indicate that the simpler, more direct Model 1 is the most accurate depiction of the relationships between the latent variables of the four presented in this study.

Research Question 1

The first research question concerned whether the Hopefuls differed from the Happys on a) recollected expectancy of passing the test and expectancy of receiving a

Table 5.12 Comparison of the 4 LISREL Models.

Model Number	Chi-square	Degrees of Freedom	Chi-square to df Ratio	Adjusted Goodness of Fit
Model 1	149.05***	10	14.90	.49
Model 2	126.44***	6	21.07	.44
Model 3	133.17***	6	22.20	.39
Model 4	121.48***	6	20.25	.44

Note: *** $p < .001$

promotion if the test is passed; b) perceived instrumentality of receiving the promotion in obtaining intrinsic or extrinsic rewards and c) perceived valence of the intrinsic and extrinsic rewards associated with receiving a promotion. No hypotheses were associated with this research question.

As can be seen in Table 5.13, there was not a *t* test difference between the two groups on any of the expectancy, instrumentality or valence variables, except that people in the Happy group reported a higher subjective probability that if the test was passed, they would receive a promotion than the people in the Hopeful group. However, in essence, the higher subjective probability of receiving a promotion if they passed the test in the Happy group is a manipulation check, since the people in the Happy group did pass and get the promotion, where the people in the Hopeful group passed the test, but did not receive the promotion. It is reasonable that those who did not receive the promotion would reflect that they felt the probability of getting the promotion after passing the test was lower.

Post hoc one-way ANOVA analyses showed that although the Happy and Hopeful groups were not significantly different from each other on the variables examined in this research question, Hostiles were significantly lower than Happys on perceived valence of intrinsic rewards ($p < .05$), Hostiles were also significantly lower than both Hopefuls

Table 5.13 Summary of *t* Test Results Between Hopeful and Happy Groups on Expectancy, Instrumentality and Valence Variables.

	Mean	Standard Deviation	<i>t</i>
Intrinsic			
Instrumentalities	22.82	3.64	1.50
Hopeful	23.75	3.28	
Happy	22.35	3.74	
Extrinsic			
Instrumentalities	21.64	3.66	-.05
Hopeful	21.65	4.04	
Happy	21.70	3.40	
Negative			
Instrumentalities	8.42	3.59	.75
Hopeful	8.81	3.57	
Happy	8.11	3.67	
Intrinsic Valences	33.40	2.40	-1.22
Hopeful	32.88	2.67	
Happy	33.63	2.16	
Extrinsic Valences	32.38	2.84	-.52
Hopeful	32.11	3.14	
Happy	32.50	2.63	
Probability of			
Passing the Test	5.99	1.08	-1.25
Hopeful	5.75	1.04	
Happy	6.14	1.11	
Probability of			
Receiving the			
Promotion if the			
Test was Passed	5.10	1.69	-2.02*
Hopeful	4.50	1.77	
Happy	5.49	1.50	

Note: *n* of Hopeful = 25, *n* of Happy = 37. Degrees of freedom = 60. * *p* < .05 two-tailed.

and Happy on perceived valence of extrinsic rewards, and probability of passing the test ($p < .05$), which is essentially a manipulation check. The Hostile group was not significantly different from the Pretest group on either of the valence measures. The results of the extrinsic valence measure are presented in Figure 5.6. The results of the intrinsic valence measure are presented in Figure 5.7.

These results indicate that the Happy group did not differ from the Hopeful group on any of the expectancy, instrumentality or valence measures, with the exception of probability of receiving a promotion if the test is passed. However, the Hostile group differed from the Hopeful and Happy group on the valence measures.

Research Question 2

The second research question concerned the effects of time on the results of the study. One question concerns whether elapsed time since the test would affect groups differentially. The logical assumption would be that the Happys' attitudes towards testing, etc. would become lower as time went on, while the Hostiles' attitudes towards testing etc. would increase as time went on, and the Hopefuls' whose attitudes towards testing would remain stable over time. These results are in Table 5.14.

Fisher's r -to- z tests did not reveal any significant differences in the between group correlation coefficients.

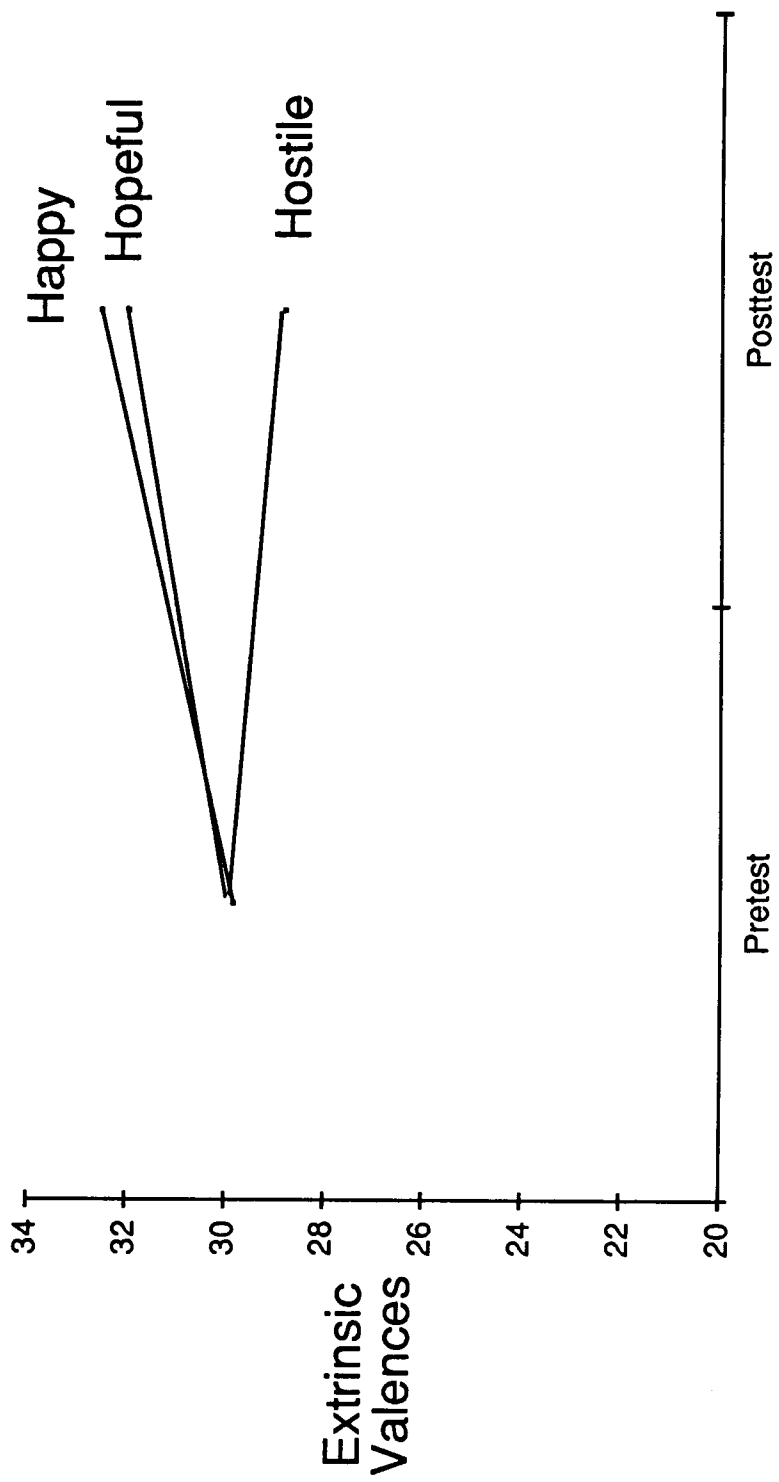


Figure 5.6. Extrinsic Valences by Test Outcome

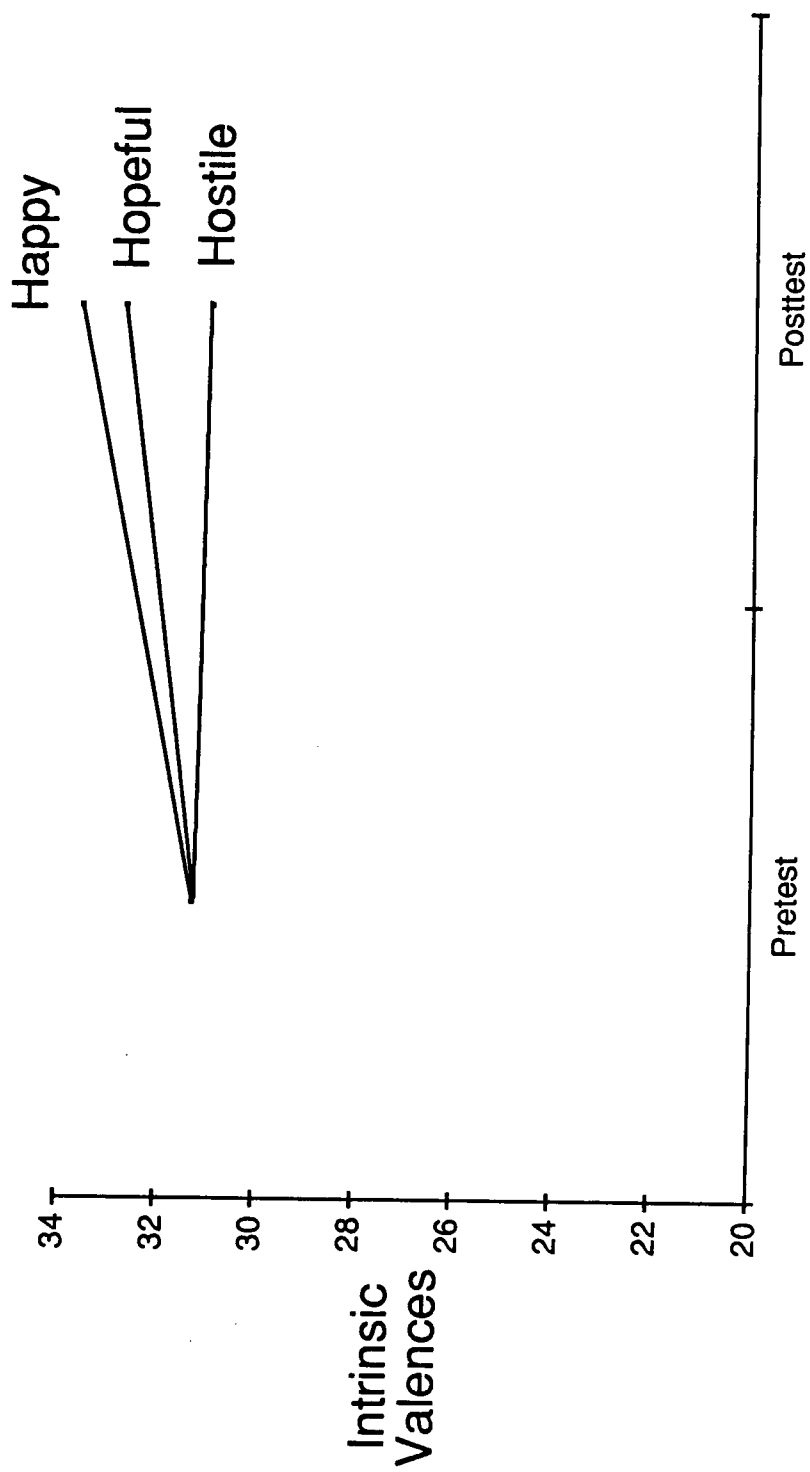


Figure 5.7. Intrinsic Valences by Test Outcome

Table 5.14 Correlation Between Time Since Testing and Major Dependent Measures by Employment Decision Based on Test Performance.

	Hostiles	Hopefuls	Happy's	Total
Self-Concept	-.17	.09	.06	-.06
Attitudes				
Towards				
Testing	-.27*	-.07	-.03	-.17*
Organizational				
Commitment	-.30**	-.03	-.14	-.27***
Job				
Involvement	-.20	.16	.03	-.12
Life				
Satisfaction	.02	.13	-.11	-.05

Note: n of Hostiles = 80, n of Hopefuls = 25, n of Happys = 37. * $p < .05$ ** $p < .01$ *** $p < .001$, two-tailed.

Since there are no differences in the between group correlations, we cannot reject the null hypothesis and hence conclude from this analysis that time since testing does not affect attitudes significantly between groups.

Using ANCOVA analysis, we see that time since the test does not significantly alter the main effects when entered into the equation as a covariate. Even after accounting for time since taking the test, with the exception of attitudes towards testing, the other variables do not vary by group. These results are in Table 5.15.

To test whether time since taking the test interacted with group membership, a 3 (test outcome) by 6 (time since testing blocked in 6 month intervals) ANOVA was performed. Table 5.16 for the results.

Since none of the interaction terms are significant at the .05 level, we cannot reject the null hypothesis. Given the correlational, ANCOVA and ANOVA results, we may conclude that there are no differential time effects between groups regarding the major dependent measures.

Post Hoc Analyses

Racial Differences

Given that there are two distinct racial groups in this sample (Anglo American and Mexican American), it was important to investigate whether race moderated the relationships found in the study (Scarr, 1988).

Table 5.15 ANCOVA Using Time Since Testing as a Covariate Across Employment Decision Based on Test Performance.

Variable	F
Self-Concept	
Time Since Testing (Covariate)	.49
Test Outcome (Main Effect)	.87
Attitudes Towards Testing	
Time Since Testing	2.77
Test Outcome	22.49***
Job Involvement	
Time Since Testing	1.17
Test Outcome	.43
Organizational Commitment	
Time Since Testing	6.14*
Test Outcome	.18
Life Satisfaction	
Time Since Testing	.00
Test Outcome	.38

Note: n = 142 * $p < .05$ *** $p < .001$

Table 5.16 Analysis of Variance Using Employment Decision Based on Test Performance, Time Since Testing and Test Outcome by Time Since Testing Interaction.

Variable	df	F
Self-Concept		
Test Outcome (A Main Effect)	2	.17
Time Since Testing (B Main Effect)	5	.38
Interaction Terms (AxB)	10	.42
R with all 3 terms in model = .13		
Attitudes Towards Testing		
Test Outcome	2	21.15***
Time Since Testing	5	1.14
Interaction Term	10	.78
R with all 3 terms in model = .52***		
Job Involvement		
Test Outcome	2	.40
Time Since Testing	5	1.06
Interaction Term	10	.76
R with all 3 terms in model = .21		
Organizational Commitment		
Test Outcome	2	.12
Time Since Testing	5	1.64
Interaction Term	10	.29
R with all 3 terms in model = .26		
Life Satisfaction		
Test Outcome	2	.26
Time Since Testing	5	.53
Interaction Term	10	.71
R with all 3 terms in model = .16		

Note: n = 142. *** $p < .001$.

First, t tests were run on the major variables to see if there were group differences. See Table 5.17 for results. Although there are several t test differences between Mexican Americans and Anglo Americans on such variables as attitudes towards testing, job involvement, organizational commitment, life satisfaction and probability of promotion, it is of more interest to compare the intercorrelations between variables. See Table 5.18 for the correlations between variables.

The following correlations showed significant Fisher's r-to-z differences: Mexican Americans had significantly higher correlations than Anglo Americans between subjective probability of receiving a promotion if they passed the test and valence of extrinsic rewards, life satisfaction and negative instrumentalities (negative), valence of intrinsic rewards and subjective probability of receiving a promotion if they passed the test, instrumentality of the test towards extrinsic rewards and subjective probability of receiving a promotion if they passed the test, and valence of extrinsic rewards and instrumentality of the test towards intrinsic rewards. Anglo Americans had a significantly higher correlation between job involvement and life satisfaction than Mexican Americans. The pairs of correlations which differed between the Mexican American and Anglo American samples are presented in Table 5.19.

Table 5.17 Summary of t Tests Between Mexican Americans and Anglo Americans.

	Mean	Standard Deviation	t
Self-Concept	32.85	7.52	.98
Anglo	33.30	7.22	
American			
Mexican	31.93	8.11	
American			
Attitudes Towards			
Testing	54.02	12.54	-3.44***
Anglo	51.51	12.61	
American			
Mexican	59.20	10.77	
American			
Job Involvement	39.69	12.70	-4.64***
Anglo	36.38	11.85	
American			
Mexican	46.56	11.71	
American			
Organizational			
Commitment	46.65	12.60	-4.50***
Anglo	43.44	12.40	
American			
Mexican	53.28	10.29	
American			
Life Satisfaction	162.71	20.14	-3.24**
Anglo	158.90	19.75	
American			
Mexican	170.60	18.82	
American			
Intrinsic			
Instrumentalities	22.14	5.14	-.39
Anglo	22.02	5.34	
American			
Mexican	22.40	4.75	
American			

Table 5.17 (continued).

	Mean	Standard Deviation	t
Extrinsic			
Instrumentalities	20.67	5.22	-1.84
Anglo	20.09	5.20	
American			
Mexican	21.86	5.10	
American			
Negative			
Instrumentalities	8.97	4.52	-1.54
Anglo	8.55	4.13	
American			
Mexican	9.84	4.67	
American			
Intrinsic Valences	32.39	4.40	-.35
Anglo	32.30	4.27	
American			
Mexican	32.58	4.70	
American			
Extrinsic Valences	30.81	4.66	.16
Anglo	30.86	4.34	
American			
Mexican	30.72	5.31	
American			
Probability of			
Passing the Test	5.39	1.61	-.26
Anglo	5.37	1.77	
American			
Mexican	5.44	1.26	
American			
Probability of			
Receiving a			
Promotion if the			
Test is Passed	4.75	2.06	-2.38*
Anglo	4.45	2.24	
American			
Mexican	5.35	1.46	
American			

Table 5.17 (continued).

Note: n of Anglo American = 89, n of Mexican American = 43.
Grand means and pooled variance were computed for Anglo
American and Mexican American participants, n = 132.
Degrees of freedom = 130. * $p < .05$, ** $p < .01$ *** p
< .001 two-tailed.

Table 5.18 Correlations for Anglo Americans and Mexican Americans on Major Dependent Measures.

	1	2	3	4	5	6	7	8	9	10	11	12
1. SELF	--	.02	-.02	-.10	-.08	.17	.08	.05	-.04	-.06	.08	-.06
2. ATT	-.21	--	.07	.22*	.22*	.11	.14	.05	.27++	.24++	.34+++	.32+++
3. JI	.26*	-.16	--	.64***	.25**	.10	.01	.04	.27++	.09	.04	.07
4. OC	-.18	.10	.50***	--	.47***	.13	.03	.08	.28+++	.15	.06	.14
5. LSAT	-.40**	.07	-.15	.30**	--	.04	.01	.40+++	-.01	-.05	.07	.22+
6. INSEXT	.03	.25+	.10	.19	-.05	--	.76***	.29***	.40***	.46***	.21*	.01
7. INSINT	.08	.28	.12	.08	-.11	.84***	--	-.08	.29**	.40***	.17	.09
8. NEGINS	-.03	.20	-.15	.09	-.01	.07	.05	--	-.07	-.09	-.10	-.21*
9. VALEXT	-.04	.22	.06	-.02	-.05	.54***	.59***	.12	--	.75***	.20*	.16
10. VALINT	-.10	.23	.06	-.00	-.03	.57***	.60***	.06	.84***	--	.38***	.18*
11. PPASS	-.22	.35++	-.03	.18	.21	.38**	.35**	.03	.37**	.38	--	.41***
12. PPROMO	-.14	.17	.03	.07	.21	.31*	.41**	.05	.58***	.60***	.20	--

Note: Anglo American correlations in the upper diagonal, Mexican American correlations in the lower diagonal. Anglo American n = 89, Mexican American n = 43. SELF = Self-Concept, ATT = Attitudes Towards Testing, JI = Job Involvement, OC = Organizational Commitment, LSAT = Life Satisfaction, INSEXT = Extrinsic Instrumentalities, INSINT = Intrinsic Instrumentalities, NEGINS = Negative Instrumentalities, VALINT = Intrinsic Valences, VALEXT = Extrinsic Valences, PPASS = Probability of Passing Test, PPROMO = Probability of getting a promotion if the test is passed. * $p < .05$ ** $p < .01$ *** $p < .001$ one-tailed. + $p < .05$ ++ $p < .01$ +++ $p < .001$ two-tailed.

Table 5.19 Correlation Coefficients Which Were Significantly Different From Each Other Between the Mexican American and Anglo American Samples.

Variables	r Mexican Americans	r Anglo Americans	z
Job Involvement and Life Satisfaction	-.15	.25	2.14*
Probability of Receiving a Promotion and Extrinsic Valences	.66	.16	2.68**
Life Satisfaction and Negative Instrumentalities	-.42	-.01	2.30*
Intrinsic Valences and Probability of Receiving a Promotion if the Test was Passed	.69	.18	2.73**
Extrinsic Instrumentalities and Probability of Receiving a Promotion if the Test was Passed.	.44	.01	2.30*
Extrinsic Valences and Intrinsic Instrumentalities	.68	.30	2.03*

Note: Anglo American $n = 89$, Mexican American $n = 43$. * $p < .05$ ** $p < .01$, two-tailed.

Despite the above mentioned differences in correlation coefficients between the two groups, subsequent analysis of variance using both race and employment decision based on test performance as independent variables did not reveal any interaction effects. This suggests that race does not moderate the relationship between test outcome and the dependent measures.

Gender Differences

To explore the possibility that men and women view the testing situation differently, additional analyses were performed. A summary of the *t* test results is presented in Table 5.20 and correlational analyses results are in Table 5.21. With the exception of organizational commitment, there are no *t* test differences between men and women.

The following correlations were significantly higher in the female sample than the male sample using a Fisher's *r*-to-*z* test: Attitudes towards testing and subjective probability of passing the test; and the test's subjective instrumentality to intrinsic rewards and subjective probability of passing the test. No correlations in the male sample were significantly higher than in the female sample. The correlation coefficients which are significantly different from each other in the male and female samples are presented in Table 5.22

Table 5.20 Summary of t Tests Between Males and Females.

Variable	Mean	Standard Deviation	t
Self-Concept	32.89	7.72	.94
Male	33.31	7.79	
Female	32.01	7.60	
Attitudes Towards			
Testing	53.15	12.63	-.09
Male	53.09	12.63	
Female	53.30	12.77	
Job Involvement	39.74	12.59	-.26
Male	39.55	12.20	
Female	40.15	13.51	
Organizational			
Commitment	46.50	12.66	-2.28*
Male	44.86	12.79	
Female	49.95	11.80	
Life Satisfaction	163.06	19.58	-.28
Male	162.74	19.31	
Female	163.72	20.34	
Intrinsic			
Instrumentalities	22.03	5.15	-.37
Male	21.92	5.02	
Female	22.26	5.45	
Extrinsic			
Instrumentalities	20.76	5.13	.01
Male	20.76	4.90	
Female	20.75	5.65	
Negative			
Instrumentalities	9.24	4.56	-.69
Male	9.06	4.29	
Female	9.63	5.11	
Intrinsic Valences	32.05	4.92	.16
Male	32.10	4.41	
Female	31.96	5.91	

Table 5.20 (continued).

Variable	Mean	Standard Deviation	t
Extrinsic Valences	30.40	5.24	.19
Male	30.46	4.89	
Female	30.28	5.97	
Probability of Passing the Test	5.32	1.66	.53
Male	5.37	1.60	
Female	5.21	1.79	
Probability of Receiving a Promotion if the Test is Passed	4.72	2.06	-.01
Male	4.72	1.95	
Female	4.72	2.28	

Note: n of Male = 97, n of Female = 46. Degrees of freedom = 141. * $p < .05$, one-tailed.

Table 5.21 Correlations on Major Dependent Measures in the by Gender.

	1	2	3	4	5	6	7	8	9	10	11	12
1. SELF	--	.15	-.13	-.13	-.27	.27	.22	-.04	.09	.08	.29+	-.18
2. ATT	-.14	--	-.03	.17	.05	.35**	.39+++	-.05	.31+	.37++	.55+++	.41++
3. JI	.04	.18*	--	.69***	.11	.12	.04	.14	.26+	.24+	-.01	.12
4. OC	-.18*	.32***	.68***	--	.35**	.29*	.08	.35++	.33+	.33+	.09	.06
5. LSAT	-.15	.31***	.29**	.54***	--	.04	-.13	.23	.06	.04	.18	.23
6. INSEXT	.00	.06	.21+	.18+	.11	--	.80***	.14	.32*	.38**	.41**	.18
7. INSINT	.01	.06	.08	.04	.04	.75***	--	.02	.40**	.50***	.48***	.39**
8. NEGINS	-.02	.06	.03	.04	-.05	.03	.08	--	.08	.03	-.03	.06
9. VALEXT	-.14	.23+	.19+	.18+	-.04	.48***	.39***	-.09	--	.86***	.32*	.37**
10. VALINT	-.19	.18	.08	.11	-.04	.51***	.41***	-.10	.81***	--	.41**	.44***
11. PPASS	-.20+	.19+	.06	.05	.06	.14	.14	-.10	.21*	.31***	--	.43**
12. PPROMO	-.07	.24++	.16	.26++	.28++	.10	.07	-.11	.27**	.23*	.36***	--

Note: Male n = 97, Female n = 46. Male correlations in the lower diagonal, Female correlations in the upper diagonal. SELF = Self-Concept (negatively scored), ATT = Attitudes Towards Testing, JI = Job Involvement, OC = Organizational Commitment, LSAT = Life Satisfaction, INSEXT = Extrinsic Instrumentalities, INSINT = Intrinsic Instrumentalities, NEGINS = Negative Instrumentalities, VALINT = Intrinsic Valences, VALEXT = Extrinsic Valences, PPASS = Probability of Passing Test, PPROMO = Probability of getting a promotion if the test is passed. * $p < .05$ ** $p < .01$ *** $p < .001$ one-tailed, + $p < .05$, ++ $p < .01$, +++ $p < .001$ two-tailed.

Table 5.22 Correlation Coefficients Which Were Significantly Different From Each Other Between Male and Female Samples.

Variables	<i>r</i> Males	<i>r</i> Females	<i>z</i>
Attitudes Towards Testing and Probability of Passing the Test	.19	.62	-2.33*
Probability of Passing the Test and Intrinsic Instrumentalities	.24	.52	-2.06*

Note: Male $n = 97$, Female $n = 46$. * $p < .05$ ** $p < .01$, two-tailed.

coefficients between the two group, subsequent analysis of variance between using both gender and group as independent variables did not reveal any interaction effects.

Summary of Hypothesis Testing

Table 5.23 summarizes the results of the hypothesis testing. Results of investigating research questions 1 and 2 are summarized in Table 5.24.

Table 5.23 Summary of Hypothesis Testing.

	Supported	Not Supported
Hypothesis 1:		
People in the Happy group will have:		
a) Higher Self-Concept		X
b) More Positive Attitudes Towards Testing	X	
c) Greater Job Involvement		X
d) Greater Organizational Commitment		X
e) Higher Life Satisfaction		X
than those in the Hopeful group. Those in the Hopeful group will have		
f) Higher Self-Concept		X
g) More Positive Attitudes Towards Testing	X	
h) Greater Job Involvement		X
i) Greater Organizational Commitment		X
j) Higher Life Satisfaction		X
than those in the Hostile group.		
Hypothesis 2:		
Self-Concept Mediates the Relationship Between the Pre-Employment Test Outcome.		X
Hypothesis 3:		
Attitudes Towards Testing Will Moderate the Relationship Between Test Outcome and Self-Concept.		X

Table 5.24 Summary of the Results of Research Questions 1 and 2.

	Yes	No
Research Question 1:		
Do Happys differ from Hopefuls on:		
a) Perceived Instrumentality of the Test Towards Intrinsic Rewards?		X
b) Perceived Instrumentality to the Test Towards Extrinsic Rewards?		X
c) Perceived Valence of Intrinsic Rewards?		X
d) Perceived Valence of Extrinsic Rewards?		X
e) Perceived Instrumentality of <u>not</u> Receiving a Promotion.		X
f) Subjective Probability of Passing the Test?		X
g) Subjective Probability of Receiving a Promotion if the Test is Passed?	X	
Research Question 2:		
Are the Effects of Employment Decisions Based on Results of Pre-Employment Tests Affected by the Passage of Time?		X

CHAPTER 6

DISCUSSION

In the present study, the effects of pre-employment, test outcomes on attitudes towards testing, self-concept, job involvement, organizational commitment and life satisfaction were examined. The literature on the effects of testing on the test taker had previously been focused either on educational testing, or on personality testing. One objective of this study was to examine the effects that employment decisions based on the results of a pre-employment test had on individuals' self-concept and their organizational attitudes and life satisfaction.

Two research questions were also addressed. The first examined how the following differ between people who passed the pre-employment test but did not receive a promotion and those who passed the test and did receive a promotion: perceived expectancies of test performance and the subsequent employment decision; perceived instrumentality of the pre-employment test towards extrinsic and intrinsic rewards; and the perceived valence of the intrinsic and extrinsic rewards. The second research question assessed the effects the pre-employment test had on the individuals' organizational attitudes and life attitudes over time.

Post hoc analyses were performed on both race and gender differences. These analyses were performed for

exploratory reasons and were interpreted with future research in mind.

In the following section, after the limitations of the study are considered, the discussion will focus on the results of the hypothesis and research question testing. Theoretical, and practical implications of the findings will be explored, and suggestions will be offered for future research.

Limitations of the Study

Before drawing any implications from the results of the hypothesis testing, it is important to be aware of some limitations of the study. First and foremost is the dependence on self-report data. This problem is particularly acute with the measure of self-concept. The self-concept measure seemed to suffer from a social desirability bias in that many subjects consistently responded using only one of the more positive options for all 20 items. The social desirability bias may have attenuated relationships between self-concept and other variables.

With the exception of the results of the test and self-concept, self-report was an appropriate method for this particular study in that it is the individual's perceptions and experiences that are of interest, both practically and

conceptually. Another problem in this type of study is that using common methods, particularly on the same instrument, may lead to common method covariance and inflation of the observed relationships (London, Crandall, & Seals, 1977). Hopefully, some of these problems were avoided by using different response formats and negatively worded items on the scales.

Related to the problem of common methods is the possibility of participant acquiescence when filling out the survey. One could imagine the possibility that some participants may have responded positively to all of the items on the survey. However, this is unlikely to have occurred in this study because, such an acquiescence would have lead to consistently high correlations among all variables, which was not the case. Although there were high intercorrelations among the expectancy, instrumentality and valence items, analysis of variance across test outcome groups showed that there were mean differences among those variables, hence ruling out the possibility that subjects showed strong response bias.

Another specific problem lies in the observations of the groups, including the pretest. In the pretest, although job applicants were told that their responses on the questionnaire would not have any effect on the decision of whether they would be hired or not, one must imagine that some demand characteristics (Christensen, 1980) were present

when individual's were asked about the test they just took and their expectancies of the test results on various job attributes. These demand characteristics may have lead posttest respondents to inflate their replies to questions about their perceptions of test and anticipated results of the test. There may have also been an interaction between group membership and reactivity to the measures (Webb, Campbell, Schwartz, & Sechrest, 1966). For instance, the people in the Happy group may have felt that since they did receive the promotion, they would be expected to have more favorable attitudes towards testing and towards the organization. Also, it may be assumed that the test experience is more salient to those responding right after taking the test, than the people in the posttest condition, some of whom had not taken the test in over 3 years.

Limits to the generalizability of the results must also be addressed. First, the organization which was studied has a culture and climate which endorses the use of pre-employment tests. As a result, the initial attitudes towards testing may have been somewhat higher than other organizations which do not use pre-employment testing. Also, because testing is a relatively accepted procedure, its effects on those who take it in this type of climate may be minimized since the experience is not that unusual for them. Another limit to the generalizability of the results

is that sampling was not systematic, particularly in the posttest. One will never know how the sample differs from the population on variables other than the measured demographic variables the test performance and test outcome variables. However, this may not be of great concern because the posttest sample was representative of the population in terms of race, age, proportion passing the test and employment decision based on the test performance. These results allow for cautious optimism about the representativeness of the sample used in these analyses with regard to the population of people in this organization who have taken pre-employment tests.

The unmeasured variables problem also exists in the development and testing of the conceptual model in this study (James & Brett, 1984). We must be aware that this study did not examine many of the antecedents to self-concept, job involvement, organizational commitment, life satisfaction, nor any of the antecedent variables relating to attitudes towards testing are still relatively unknown. As a result, there may be other variables which are more directly related to the ones studied here and may be more important to developing a model of the effects of pre-employment testing on the people who take the tests.

Finally, before interpreting any results regarding differences between Anglo American and Mexican American samples, a possible confound is that 70% of the Mexican

American respondents are from Texas, and only 1 of the Texas respondents was Anglo. As a result, many of the observed differences may reflect a regional specific effect, and not a racial effect.

Hypothesis Testing

Relationships Between Test Results, Attitudes Towards Testing, Self-Concept, Job Involvement, Organizational Commitment and Life Satisfaction.

The results of this study indicate that test outcome does not have direct effects on self-concept, job involvement, organizational commitment and life satisfaction. However, test outcome did have a significant effect on individuals' attitudes towards testing.

The group which failed the pre-employment test (Hostile) had significantly less favorable attitudes towards testing than those in the Hopeful group (those who passed the pre-employment test but did not receive a promotion), those in the Happy group (those who passed the pre-employment test and received a promotion) and the Pretest sample. Also, the Happy group had significantly higher attitudes towards testing than the Pretest group. This means that the attitude towards testing of those in the Hopeful group remained the same as the pretest group, whereas the attitudes towards testing of those in the

Hostile group were less favorable as a result of test outcome, and the attitudes toward testing of those in the Happy group became more favorable as a result of the employment decision made towards them. Although this result is rather intuitive, it does highlight that, regardless of any procedural precautions the organization takes, an individual's attitude toward testing is a function of the test outcome.

One explanation of why the test did not affect individuals' life satisfaction comes from a line of research which concludes that satisfaction is more of a product of dispositional characteristics than of situational characteristics (Epstein, 1979; Staw & Ross, 1985; Staw, Bell & Clausen, 1986). For example, Epstein found that some characteristics, such as happiness which showed a .92 odd-even day correlation, were quite stable over time in individuals. The Staw et al., while not studying life satisfaction per se, did find job satisfaction displayed a significant correlation over 5 years, even when the individual changed jobs. Similarly, Gerhart (1987) presented data which showed that previous (5 years) reports of job satisfaction are a stronger predictor of current job satisfaction than previous pay, current pay, previous occupational status and current occupational status combined.

As with life satisfaction, job involvement was not

affected by the employment decision based on the pre-employment test. Given that in this study the more situationally oriented job involvement was used, instead of the more globally oriented work involvement (Kanungo, 1982), the focus of the job involvement instrument was on the current job, as opposed to being involved with work in general. Given this approach, it would be expected that situational factors would affect one's involvement to a specific job more than one's general work involvement. Contrary to this assumption, the situational variable (employment decision based on the pre-employment test) did not affect participants' job involvement.

Another possible explanation of why job involvement was not affected by the test results lies in the definition of job involvement. Lodahl and Kejner (1965) defined job involvement in terms of the degree to which a person is socialized into the organization, the degree to which job performance affects self-concept and how much a person identifies his/her self-concept with the job. Since the results of this study indicate that self-concept was not affected by the employment decision based on the test result, it stands to reason that the result of the test would not affect job involvement either.

Another interpretation of the finding that test outcome did not affect self-concept may be found in the cognitive

psychology literature. Trope (1986) posits that when attempting tasks, an individual will either attempt to enhance his/her self-esteem or assess his/her self-esteem. Self-enhancement involves maximizing esteem-related affect whereas self-assessment involves the amount of information about the self the task performance provides. Another variable in self-assessment/enhancement motivation is diagnosticity. Diagnosticity is the subjective judgment regarding the relationship between test performance and ability. In this study, the individual's attitude towards testing may have reflected their attitude about the diagnosticity of the pre-employment test.

Trope (1986) submits that the function of diagnosticity is similar for both self-enhancement and self-assessment. That is, neither self-enhancement or self-assessment will be affected if the person feels that the pre-employment test has low diagnostic value. In effect, this supposition says that diagnosticity (attitudes towards testing) moderates the relationship between test performance (test outcome) and self-assessment or self-enhancement (self-concept).

In this study, the measure of self-concept appears, in Trope's (1986) terminology, to measure self-assessment, in that the items ask the person to describe himself/herself. Taking the pre-employment test may be also be looked at as a self-assessment event (I wonder if I'm good enough to be promoted?). Since self-concept did not differ among groups,

one conclusion is that the test outcome did not provide people with self-assessment information. However, since attitudes towards testing did vary across groups, another conclusion which may be drawn is that test outcome did affect the perceived diagnosticity of the test.

Also, contrary to Hypothesis 1, test outcome did not affect participants' organizational commitment. Apparently, test outcome did not affect the participants' identification with the organization and its goals and values or the desire to remain with the organization. Since organizational commitment was correlated with attitudes towards testing, it appears that there is some correspondence between the organization's goal of selecting the most qualified individual for a job, and the participant's goals, such as a desire to have an equal opportunity at a receiving a promotion. Since even those in the Hostile group still identified with the organization and agree with the organization's goal of using pre-employment tests, despite not passing the test, this hypothesis is rejected.

One speculation about why most of the hypotheses were not supported is that test outcome does not have a strong effect on a person's self-concept, job involvement, organizational commitment or life satisfaction. Since all of the people in this survey knew that they would still have a job, even if they failed the test, the test outcome may

not be as salient as assumed in this study. If the sample for this study were people who took a test to gain employment, the test outcome may have had a larger effect on self-concept.

Self-concept as a Mediator Between Test Outcome and Job Involvement, Organizational Commitment and Life Satisfaction.

Given that self-concept was not related to test outcome, and test outcome was not directly related to job involvement, organizational commitment and life satisfaction it can be concluded that self-concept was not found to mediate the relationship between test result and job involvement, organizational commitment and life satisfaction. Without these two relationships, self-concept cannot mediate the relationship between test outcome and job involvement, organizational commitment and life satisfaction (James & Brett, 1984).

An interpretation of this finding may be that a pre-employment test is not as large of a life event as was presumed at the outset of this study, or that the relationship between test outcome and self-concept is a very small one which would not be detected by this study. One reason for this may be that all participants had jobs at the time of testing. This may have made the test less of a "life or death" situation since the people still had a jobs,

regardless of test outcome. The pre-employment testing situation differs from school testing situation in that standardized educational tests, such as SAT or GRE, may have far greater implications for the individual's life, such as getting into college or graduate school which can influence a person's chosen occupation and life style for which Goslin (1963) designed his model.

However, one of Goslin's (1963) speculations was supported. Goslin posited that if test performance did not affect self-concept, then test performance would not affect secondary variables. The present results are consistent with this hypothesis in that the employment decision based on test performance was not related to self-concept, nor was it related to job involvement, organizational commitment or life satisfaction.

Attitudes Towards Testing as a Moderator of the Relationship Between Self-Concept and Test Outcome.

Attitudes towards testing did not interact with test outcome to explain variance in self-concept beyond the main effects of test outcome and attitudes towards testing. This means that the effects of test outcome on self-concept were not more profound when an individual had a more positive attitude towards testing than when the person had a less positive attitude towards testing. This does not support the hypothesis that attitudes towards testing moderates the

relationship between test outcome and attitudes self-concept.

Goslin (1963) felt that if a person had a high self-concept, but failed a test, or had a low self-concept and passed the test, that the individual would have to either change his/her self-concept, or his/her attitude towards the test. If the person had a low self-concept and failed the test, or had a high self-concept and passed the test, no change in self-concept or attitudes towards testing would be required because the test results would confirm the person's self-concept. The results of this study showed that test outcome did not alter self-concept across groups, while the more positive test outcomes lead to more positive attitudes towards testing. This result indicates that the self-concept is less malleable to situational factors than are attitudes towards testing as suggested by Goslin (1963).

Expectancy, Instrumentality and Valence Differences Between Those Who Pass a Test and Do Not Receive a Promotion and Those Who Pass a Test and Do Receive a Promotion

This research question addressed the possibility that those who passed the pre-employment but did not receive a promotion (Hopefuls) differed from those passed the test and did receive the promotion (Happys). Differences were assessed on the expectancy of passing the test, expectancy of receiving a promotion if the test was passed, perceived

instrumentality of the promotion towards intrinsic and extrinsic rewards, and how valent they perceived the extrinsic and extrinsic rewards to be. The two groups did not differ across these variables, with the exception of those in the Happy group feeling a higher expectancy of receiving a promotion after passing the test. This, in effect, is a manipulation check.

In general, these results indicate that the employment decision of giving the promotion to only some of the people who passed the test did not affect the participants' expectancies, perceived instrumentality of the test or the perceived valence associated with outcomes from receiving the promotion. One interpretation of this result is that the Hopefuls did not receive any valent intrinsic rewards by passing the test. The Hopefuls saw the test as being just as instrumental to achieving both intrinsic and extrinsic rewards, and they valued the intrinsic and extrinsic rewards as much as the Happy group.

From an expectancy theory (Vroom, 1964; Porter & Lawler, 1968) framework, one could expect that those in the Happy group would view the promotion as being more instrumental towards receiving rewards than the Hopeful group because the people in the Happy group received the rewards associated with the promotion while the people in the Hopeful group did not. Presumably, the people in the Happy group were more satisfied with the rewards they

received than those in the Hopeful group who did not receive the rewards. This satisfaction information would then be accounted for when the individuals estimate the expectancies, instrumentalities and valences concerning the test, promotion and the rewards associated with the promotion.

According to Porter and Lawler (1968), an important moderator of this feedback loop is the perceived equity of the rewards (Adams, 1965). Equity theory (Adams, 1965) would predict that if the Hopefuls felt as if they had put as much input into applying for the promotion (whether it be test performance, seniority with the company, experience, etc.) as the those in the Happy group, but those in the Happy group still received the promotion, this would be an inequitable situation which would arouse dissonance. In order to resolve the dissonance, those in the Hopeful group could either change their referent, their perceptions of their inputs, or their perceptions of the outcome (Goodman, 1977). A speculation from the findings of this study is that the Hopeful group may have not felt that there was a dissonant situation at all since their inputs were not discounted in terms of probability of passing the test, nor were the outcomes associated with the promotion discounted. It is interesting to note that the Hopeful group's attitude towards testing was unchanged from the levels of the pretest

group. This indicates that, unlike the Hostile group, the Hopeful group did not develop a less favorable attitudes towards the test as a result of the test outcome. However, participants were not asked if they felt that the promotion decision was an equitable one, so the above comments are speculative.

The Hopefuls viewing the test as being just as instrumental to achieving rewards as the Happy group may be interpreted using a cognitive dissonance perspective (Festinger, 1957). Cognitive dissonance theory would expect the Hopefuls to downgrade the importance of rewards they were so close to obtaining in order to maintain self-efficacy. However, *post hoc* analyses revealed that the Hostile group valued the intrinsic and extrinsic rewards less than either the Hopeful or Happy groups ($p < .05$). This implies that those in the Hopeful group may have valued the rewards associated with receiving a promotion as much as the those in the Happy group because the Hopefuls may have believed that there may come a time when they will receive a promotion and the rewards associated with the promotion. On the other hand, the Hostile group may have felt that the rewards were out of their reach, and have downgraded the importance of the rewards in order to maintain self-efficacy. Those in the Hostile group may have also discounted the valence of the rewards associated with the promotion as an act of "sour grapes", in effect indicating

that if they cannot have the rewards associated with the promotion, they did not want them anyway.

Interestingly, the perceived instrumentality of the test for both intrinsic and extrinsic rewards did not differ across the three groups. This may be attributable to the organization's climate for selecting based upon pre-employment test scores in that the employees know that passing the test has a high (although, not perfect) correlation with receiving the promotion, which is then linked to obtaining various rewards. Hence, the instrumentality of the tests may be somewhat objective in the eyes of the participants. However, although the treatment did not affect the means of the groups on the instrumentality variables, the treatment did alter the shape of the distribution of scores between groups.

Post hoc comparisons showed that the Hostile group was more heterogeneous regarding reports of the perceived instrumentality of the tests towards extrinsic variables than either the Hostile or the Hopeful group. This, and other tests which show a heterogeneity of variance across group, may be a product of differences in sample sizes since the Hostile sample sizes are roughly twice as large as the Happy or Hopeful samples. However, the *F* test is generally robust in situations where there is not a homogeneity of variance between cells, so there can have faith in

interpretations of the results of the ANOVAs.

Another interpretation of the homogeneity of variance results is that the more homogeneous Happy group knows first hand how instrumental the test is in gaining rewards, so there is less variability in that particular sample. The Hostile group, on the other hand, which has not experienced the positive outcomes associated with passing the test, may be more unsure whether the test really does lead to the rewards it is supposed to. Therefore, they may be more heterogeneous on this dimension than the other groups.

Effects of Time on Dependent Measures

One research question this study addressed was whether time since taking the test affected the dependent measures, and whether there were differential effects of time between groups. The Hostiles showed a decline in their attitudes towards testing and organizational commitment with job involvement showing a strong tendency towards the same pattern. However, the Hostile group's correlations were not significantly different from those in the Hopeful or Happy groups, mostly due to low sample sizes in the Hopeful and Happy groups. Since the correlations are not significantly different across groups, these results are difficult to interpret meaningfully. Further research with larger sample sizes is needed to clarify these results.

Time since testing did not moderate the relationship

between group membership and the major dependent measures. Nor did time since testing have a main effect across group, or interact with test outcome to affect major dependent measures.

In total, the results indicate that time since testing was not a major determinant of attitudes towards testing, organizational commitment, job involvement or life satisfaction. Rather, it appears that the Hostile group's organizational attitudes declined as time since testing increased. This may indicate a general dissatisfaction with the organization since the taking the pre-employment test. One speculation is that the Hostiles do not feel as if they have been equitably treated, and as a result, become less involved and committed in their jobs over time. The time variable is important here because no between group differences were found on organizational commitment or job involvement.

Post Hoc Analyses

Although there were not any hypothesized relationships regarding race or gender and the variables of interest in this study, *post hoc* analyses were performed. These analyses were performed on race because it is important to be sensitive to differences related to ethnicity in order to deal with them forthrightly before generalizing the results of the study (Scarr, 1988). The analyses were performed on

gender for the same reasons. Race and gender differences are reported with the caveat that they are *post hoc*, and that any findings need replicating before making any generalizations (Denmark, Russo, Frieze, & Sechzer, 1988).

Racial Differences

Mexican Americans reported more favorable attitudes towards testing and higher levels of job involvement organizational commitment and life satisfaction than Anglo Americans. One speculation of why the Mexican Americans held more positive attitudes in general is that, as a minority group, they may feel fortunate to be in the position they are. Given the poor economic conditions in this region of the country compared to the other regions in the sample, and the lower economic conditions of Mexican Americans in the U.S. compared to Anglo Americans, the Mexican Americans in this study may be happy just to have a reasonably good job, and are more committed and involved because they have a job to be involved with and an organization to be committed to. Although this explanation appears on the surface to be racist, Anglo Americans in the part of the country where the Mexican American sample was acquired may also have higher organizational attitudes due to having a job where many around them are unemployed.

This speculation of the Mexican Americans having more favorable organizational attitudes because they feel

fortunate to be employed is particularly salient because the company closed a plant in the part of the country where the Mexican American sample was obtained from six months before the survey was administered. However, the higher organizational affect of Mexican Americans versus Anglo Americans may explain mean differences on variables, but not the different correlations.

It is interesting to note that most of the correlations which differed between Mexican Americans and Anglo Americans involve the probability of receiving a promotion, given that the test was passed. This may indicate that the promotion may be seen to be more related to valent intrinsic and extrinsic rewards in the Mexican American sample than the Anglo American sample. This is supported by the Mexican Americans having a higher correlation between receiving the promotion and the promotion being instrumental in receiving intrinsic rewards than Anglo Americans. These results, along with more positive attitudes towards testing suggests that the Mexican Americans may have felt that the opportunity to take the tests is their best chance to advance in a company where they may have been held back for ethnic reasons in the past.

The Mexican Americans may have seen the pre-employment test as a path to achieving valued rewards in this organization. This is an interesting result when it is

compared to Lounsbury, Bobrow and Jensen's (1988) finding that a third of the people who responded to a survey felt that tests discriminated against women and minorities. In this study's sample, only 9% of the Mexican Americans felt that tests discriminated versus 22% of the non-Mexican Americans. This indicates that the Mexican American minority applicants may have felt that the use of a pre-employment test was non-discriminatory, and was more instrumental to them receiving organizational rewards than the majority applicants.

The higher correlation between job involvement and life satisfaction in Anglo Americans than in Mexican Americans may be an indication of a cultural difference between the groups. One interpretation of this difference is that Anglo Americans may experience more "spillover" (Wilensky, 1960; Kabanoff, 1980) between work and nonwork. This may indicate that while Anglo Americans were not as highly job involved as Mexican Americans, their level of involvement may have had more of an impact on their nonwork lives to the extent that in order to have a high overall life satisfaction, they were more involved with the job. This finding is more puzzling when it is considered that job involvement and self-concept were uncorrelated in the Anglo American sample, but were negatively related in the Mexican American sample, while life satisfaction was significantly correlated with self-concept in the Mexican American sample, but

uncorrelated in the Anglo American sample. This may indicate that the Mexican Americans were more satisfied with their lives when they have a higher self-concept, and the Anglo Americans were more satisfied with their lives when they are more job involved. This implies two very different relationships with satisfaction in these two samples. However, cultural differences may be able to explain this differences in job attitudes.

Kagan (1977) noted that Mexican American children are socialized in a way which promotes more cooperative and altruistic behavior than Anglo American children. If this socialization generalizes to working age, it stands to reason that Mexican Americans would be more committed to group values and goals, such as being more organizationally committed and having a higher life satisfaction (remembering that many of the items regarded family, leisure and general life satisfaction) than Anglo Americans. However, this does not explain why Mexican Americans were more job involved than the Anglo Americans.

Gender Differences

In this study, men and women were equally distributed on test outcome, and there were no gender differences on the major dependent measures, except for women being more organizationally committed. However, there were some significant correlational differences. The correlational

differences included women having a higher correlation between test outcome and probability of receiving a promotion after passing the test, higher correlation between attitudes towards testing and probability of passing the test, and a higher correlation between probability of passing a test and intrinsic instrumentality of the test.

The finding that women showed a stronger relationship between attitudes towards testing and probability of passing the test was interesting. It could be inferred that the women who felt there was a higher probability that they passed the test when they took it had a more favorable attitude toward the test, or, in effect, having more positive affect for a task they felt they could master, as opposed to more positive affect for the test after it lead to a promotion. Consistent with this idea is the result that women saw success on the test leading to more intrinsic rewards linked with probability of passing the test than men. Again, it emphasizes an idea of competence and mastery of the test that was not evident in men. This result exists despite the fact men and women were equally distributed across test outcome.

The finding that women were more committed to the organization is in line with the normative data presented by Mowday, Porter and Steers (1982). However, they do not interpret why there would be a gender difference in levels

of organizational commitment. L. W. Porter (personal communication, November 1, 1988) alluded to the possibility that women may be socialized to be more cooperative in general than men, and that being more committed to group efforts, such as organizations, is a particular instance of the socialization process. Another interpretation of this finding is that women in organizations may feel that they have to be more committed than men in order to follow a path to success in the organization (Ragins & Sundstrom, in press). Although the proportion of variance of organizational commitment explained by gender is modest (3.5%), future research should investigate why women seem to be consistently more organizationally committed than men.

Theoretical Implications

The results of this study show that the outcome of a pre-employment test does not have any effects on an individual's self-concept, job involvement, organizational commitment or life satisfaction. However, the outcome of a pre-employment test did affect one's attitudes towards testing. The major theoretical implication of this research is that any model of the effects of employment decisions based on the results of a pre-employment test on the individuals who take them must include attitudes towards testing.

However, since the null hypothesis was not rejected in

many tests of the affect of pre-employment outcome on the individual, Goslin's (1963) model of educational testing does not appear to offer promise as a useful model for describing the effects of pre-employment testing (if there are any effects). At present, there is a shortage of theoretical models describing the psychological effects pre-employment testing has on the individuals who take the tests. The LISREL models presented indicate that a model which depicts the test outcome having direct effects on self-concept, attitudes towards testing, job involvement, organizational commitment and life satisfaction is more accurate than a model which depicts attitudes towards testing as a moderator variable between test outcome and self-concept or a model which depicts self-concept as a mediating variable between the test outcome and job involvement, organizational commitment and life satisfaction. Although there were stringent mathematical constraints placed upon the direct model so it could not fit the data particularly well, the direct model could be used as a starting point for future research on this topic.

Other theoretical implications concern attitudes towards testing. The study showed that attitudes towards testing is correlated with organizational commitment and job involvement. One theoretical question which can be asked is whether the link between attitudes towards testing and job

involvement and organizational is unidirectional or bidirectional. One speculation is that organizational commitment and job involvement would have some causal affect on attitudes towards testing since using the pre-employment test is an action of the organization to which the person is already committed and involved. Longitudinal studies of these organizational attitudes would help answer this question.

This study also provides some important information regarding the demographics of the person with a high attitude towards testing. The present study showed that Mexican Americans had more positive attitudes towards testing than Anglo Americans. An open question at this points is whether other minority groups, such as Black Americans and Asian Americans also have more positive attitude towards testing than Anglo Americans. If these minority groups do have more favorable attitudes towards testing than Anglo Americans, it would reaffirm the belief of Industrial/Organizational psychologists that the use of validated pre-employment testing is a more unbiased way of selecting people than not using validated selection programs in the eyes and those who stand to benefit the most from them.

This study indicates that other demographics concerning attitudes towards testing still need to be investigated. In particular, the results of this study are inconsistent with

other studies in showing that younger people have a more positive attitude towards testing than older people (Lounsbury, Bobrow & Jensen, 1988). More studies should be conducted to reconcile this inconsistency. However, this study confirmed Lounsbury, et al.'s findings that an individual's attitude towards testing is independent of gender. More studies should be done to examine the relationship between job level and educational attainment and attitudes towards testing as well as other possible antecedents of more favorable attitudes towards testing, such as opinions about test feedback and attitudes about the testing session itself.

Practical Implications

In one sense, the results of this study relieve Industrial/Organizational psychologists of the burden that the outcome of a pre-employment test may affect an individual's self-concept, organizational attitudes or life satisfaction. It is a legitimate question whether Industrial/Organizational psychologists have the ethical responsibility not to cause a serious effect on people's attitudes about their organization and themselves when practicing their profession. A functional view of attitudes (Triandis, 1971) suggests that people selectively process information which allows them to maintain self-concept. The

results of this study indicate that rather than altering their self-concept, participants chose to reevaluate their attitudes towards testing. This may indicate that the test outcome may not have put any pressure on the participants to alter their self-concept.

Another practical implication of this study regards the negative effects of time since testing on the Hostile group. Although this finding would need to be replicated before making any firm generalizations, time since testing explained 9% of the variance in this group's organizational commitment. Time since testing did not have the same deleterious effects on either the Happy or Hopeful groups. Given that organizational commitment has been found to be negatively related to such organizational outcomes as absenteeism and turnover (cf. Mowday, Porter & Steers, 1982), this relationship should be addressed.

One action which could be taken to alleviate the negative effects of time since testing on organizational commitment may be some sort of counseling. As mentioned in the previous section, personnel psychologists should not be in a position to have a negative effect on an individual's organizational attitudes. Personnel psychologists should meet with people who do not pass a pre-employment test and talk to them about the test, and what the results mean in terms of the person as a whole. Perhaps this would lessen such effects over time as appear to have happened in the

Hostile group. The results of the test appear to have negatively influenced their loyalty and identification with the organization.

Organizations should be wary of the effects of time on those who do not pass a pre-employment test since, in most cases, this Hostile group will be larger than either the Hopeful or Happy group. It would be of interest to see if Hostiles do experience more voluntary turnover than Hopefuls or Happys. If this were the case, organizations would have to be especially cautious in disseminating results to Hostiles as well as explaining the meaning of the test results in order to avoid this situation, which certainly would cost them money.

Future Research

There are several avenues for future research on the effects of employment testing. First, the nomological network for attitudes towards testing should be developed further. This study presented evidence that attitudes towards testing was related to other important organizational attitudes, such as job involvement and organizational commitment. Future research could examine whether or not a more favorable attitude toward testing is a result of being more job involved or having a higher level of organizational commitment, or whether attitudes towards

testing evolves from other factors, such as previous test experience or how the person felt about the feedback s/he received after taking the pre-employment test. Also, other antecedent conditions, such as opinions about test feedback, and attitudes towards the specific test taken may also influence one's attitude towards testing.

Fishbein and Ijzen (1975) argue that attitudes are related to both behavioral intention and behavior. Future research should examine the behavioral consequences, if any, of one's attitude towards testing. One could speculate that a person who has a favorable attitude towards testing may espouse the benefits of the testing program to coworkers who are considering taking the test, or to help promote the use of testing to hire/promote individual's for other job titles.

Future research could also focus on other variables which may affect the relationships described in this study. For instance, the effects of the individual's perception of the justice of the testing procedure (Greenberg, 1986), as well as the individual's self-efficacy and need for achievement may be influential in describing the effects of test outcomes on individuals.

Another path future research could follow is in examining how important receiving a promotion is to individuals when they take a pre-employment test. One of the shortcomings of this study was the assumption that the

individuals who took the test regarded it as an important event. It would stand to reason that pre-employment tests would have a greater impact on those who feel that passing the test is critical than those who do not hold the test's outcome in such high regard.

Certainly, the findings of this study need to be replicated in another setting. A suggestion to improve on the design of this study would be to use a different measure of self-concept. The measure used in this study appeared to suffer from a response bias. The response bias may have attenuated any possible relationships other variables may have had with self-concept.

Future research should also investigate racial differences on organizational attitudes, such as job involvement and organizational commitment or whether race moderates the relationship between these organizational attitudes and their consequences, such as turnover and absenteeism. It was surprising to find that no previous research had been done in these areas. Given the increase of minorities in the working population in this country (particularly Mexican and Asian Americans), these issues should be investigated.

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APPENDICES

APPENDIX A

INFORMED CONSENT FORM

Thank you for participating in this research project. I am studying the effects of employment tests on the people who take them. The results of this study may benefit you and your company by improving the employment selection process. I would like to assure you that **no one at your company will see your responses**. The only reason you are asked for your name is so I can keep track of your answers. Also, you are at no risk filling this survey out because your responses to the following items will have no effect whatsoever on whether you receive the job you are applying for. You are not obligated to fill out this form, and no one at your company will know whether you have filled it out or not. Unfortunately, I'm not in a position to offer you any money for filling out this form. But, I am offering you the opportunity to help me improve your company's testing program.

If you have any further questions about this project, please feel free to call me at (615) 573-4744. Thank you again for your cooperation.

Warren S. Bobrow
University of Tennessee
319 Hialeah # 5
Knoxville, Tn 37920

- I have read the above statement and understand its content.

Signature

Date

APPENDIX B

BACKGROUND INFORMATION

Background Information

Name _____ Company _____

Your Current Job: _____

The Job You Are Applying For: _____

Years worked at this Company _____ Sex _____

Age:

Less Than 21 _____ 21-39 _____ 40-49 _____ 50-59 _____ Above 60 _____

APPENDIX C

Percent Response Distribution For

EXPECTANCY AND INSTRUMENTALITY SCALES (PRETEST)

Please indicate how likely you think each of the following are.

Extremely Unlikely	Moderately Unlikely	Slightly Unlikely	Neutral	Slightly Likely	Moderately Likely	Extremely Likely
1	2	3	4	5	6	7

	EU	MU	SU	N	SL	ML	EL
1. I will pass this test.	2%	2%	5%	14%	35%	30%	12
2. I will get a promotion if I pass this test.	21	2	9	33	9	12	14

If I get promoted, my new job would:

3. Give me more respect from others at work than my present job.	9	8	12	23	30	14	4
4. Give me more of a chance to use my abilities than my present job.	2	9	2	14	14	28	30
5. Give me a chance to have a more important job.	2	0	4	19	21	19	35
6. Give me better working conditions than my present job.	7	2	2	30	32	12	26
7. Allow me to get more praise for performing well than I get from my present job.	2	7	2	41	19	17	12
8. Give me more feelings of accomplishment than my present job.	2	2	2	14	21	23	35
9. Give me more of chance to be responsible for my own work than my present job.	7	5	0	30	12	14	33
10. Pay me significantly more money than my present job.	2	9	2	9	9	21	47

Please indicate how likely you think it is that each of the following things will happen if you do not pass this test.

Extremely Unlikely	Moderately Unlikely	Slightly Unlikely	Neutral	Slightly Likely	Moderately Likely	Extremely Likely
1	2	3	4	5	6	7

	EU	MU	SU	N	SL	ML	EL
11. I will get a promotion.	37	2	9	40	7	0	5
12. I will get more respect from others at work.	16	2	16	51	7	2	5
13. I will have an important job.	19	5	9	51	5	5	7

APPENDIX D

Percent Response Distribution For

VALENCE SCALES (PRETEST)

Please respond to the statements using the following scale:

Highly Undesirable	Moderately Undesirable	Slightly Undesirable	Neutral	Slightly Desirable	Moderately Desirable	Highly Desirable
1	2	3	4	5	6	7

How desirable is:

	HU	MU	SU	N	SD	MD	HD
1. Passing this test.	0%	0%	2%	9%	12%	16%	61
2. Receiving a promotion	0	2	0	12	9	19	58
3. Getting respect from others.	0	0	0	33	14	23	30
4. Being able to use my abilities on the job.	0	0	0	9	9	16	65
5. Having an important job.	2	0	0	12	9	18	58
6. Good working conditions.	0	2	2	12	2	19	62
7. Getting praise for performing well on the job.	2	0	0	14	26	16	42
8. Having feelings of accomplishment when I work.	0	0	0	12	0	14	65
9. Being responsible for my own work.	2	2	0	5	12	14	65
10. Making significantly more money.	0	0	5	7	5	28	59

APPENDIX E

Percent Response Distribution For

SELF-CONCEPT SCALE (PRETEST)

Please circle the number between two words you see which describes you best. Mark down the first answer which comes to you. For example:

	Bold	1 Very Bold	2 More Bold Than Timid	3 More Timid Than Bold	4 Very Timid	Timid
1.	Accepted	50%	40%	9%	0	Rejected
2.	Assertive	24	63	7	5	Submissive
3.	Cheerful	61	29	5	5	Depressed
4.	Considerate	63	27	5	5	Selfish
5.	Contented	27	61	12	0	Worried
6.	Easy-Going	44	44	7	5	Quick-Tempered
7.	Good-Natured	59	31	8	3	Critical
8.	Hopeful	51	29	10	10	Anxious
9.	Independent	59	29	10	2	Dependent
10.	Optimistic	40	55	5	0	Pessimistic
11.	Persevering	37	51	12	0	Quitting
12.	Self-controlled	51	34	12	0	Emotional
13.	Self-sufficient	51	44	2	2	Easily Influenced
14.	Trusting	78	15	2	5	Suspicious
15.	Well-adjusted	63	27	7	2	Poorly Adjusted
16.	Worthy	70	28	2	0	Unworthy
17.	Deliberate	34	46	15	5	Impulsive

	Very Bold	More Bold Than Timid	More Timid Than Bold	Very Timid	
Bold	1	2	3	4	Timid
18. Patient	46	32	15	12	Impatient
19. Poised	54	37	10	0	Awkward
20. Mature	64	27	7	2	Immature

APPENDIX F

Percent Distribution For

ATTITUDES TOWARDS TESTING SCALE (PRETEST)

Please indicate how much you agree with the following statements.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
	1	2	3	4	5
	SD	D	NO	A	SA
1. Testing is a good way to find out if a person is really suited for a job.	2	19	12	43	24
2. Tests give everybody a fair chance to get a job.	5	12	12	47	26
3. Employment tests give a person a good chance to show how capable they are of doing the job.	5	23	16	33	23
4. I don't think tests really can tell who will do well on the job and who won't.	12	26	21	20	12
5. Tests are artificial. They do not measure what a person really does on the job.	5	31	14	31	19
6. Testing is the best way to find the best person for the job.	9	37	16	26	12
7. Companies that use tests to decide who gets a job usually treat workers more like number than human beings.	7	33	44	14	2
8. Employment tests do not really measure a person's true abilities for a job.	0	19	9	56	16
9. Tests can measure important abilities that cannot be determined in an interview.	5	7	30	44	14
10. Testing gives some people a chance to get a job who would not otherwise have an opportunity to get the job.	2	16	19	51	12
11. Using tests helps cut down on favoritism in selecting people for jobs.	5	9	19	51	16
12. Using tests to select people for jobs forces workers to compete against each other too much.	5	38	30	25	3

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	
1	2	3	4	5	
					SD D NO A SA
13. Tests are often used as a way to discriminate against minority group members (like females and Blacks).					23 37 21 10 10
14. A person's previous job experience should be more important than his/her tests scores in choosing someone for a job.					0 35 30 26 9
15. I think employment testing is an invasion of privacy.					16 54 21 7 2
16. A person's desire to do a good job can't be measured by employment tests.					4 19 9 51 16
17. People with equal abilities have the same chance for success on the job.					0 19 16 51 14

APPENDIX G

Percent Response Distribution For

EXPECTANCY AND INSTRUMENTALITY SCALES (POSTTEST)

Please indicate how likely you **thought** each of the following were when you took the test.

Extremely Unlikely	Moderately Unlikely	Slightly Unlikely	Slightly Neutral	Moderately Likely	Extremely Likely
1	2	3	4	5	6
					7

	EU	MU	SU	N	SL	ML	EL
1. I would have passed the test.	6%	5%	4%	7%	17%	42%	20
2. I would have gotten a promotion if I would have passed the test.	11	9	10	11	13	24	23

If I would have received a promotion, my new job would:

3. Give me more respect from others at work than my present job.	10	4	7	24	17	18	19
4. Give me more of a chance to use my abilities than my present job.	6	1	1	9	9	23	49
5. Give me a chance to have a more important job.	7	2	0	11	14	25	41
6. Give me better working conditions than my present job.	9	2	7	20	15	20	28
7. Allow me to get more praise for performing well than I get from my present job.	11	3	4	20	18	22	22
8. Give me more feelings of accomplishment than my present job.	6	1	1	7	10	35	41
9. Give me more of chance to be responsible for my own work than my present job.	9	2	7	12	15	22	32
10. Pay me significantly more money than my present job.	6	1	3	8	12	24	47

Please indicate how likely you think it is that each of the following things would have been if you did not pass the test.

Extremely	Moderately	Slightly		Slightly	Moderately	Extremely
Unlikely	Unlikely	Unlikely	Neutral	Likely	Likely	Likely
1	2	3	4	5	6	7

					EU	MU	SU	N	SL	ML	EL
11.	I would have gotten a promotion.				51	9	13	10	3	5	8
12.	I would have gotten more respect				26	10	16	34	5	4	4
	from others at work.										
13.	I would have had an important job.				28	5	16	21	6	12	12

APPENDIX H

Percent Response Distribution For

VALENCE SCALES (POSTTEST)

Please respond to the statements using the following scale:

Highly Undesirable	Moderately Undesirable	Slightly Undesirable	Neutral	Slightly Desirable	Moderately Desirable	Highly Desirable
1	2	3	4	5	6	7

How desirable is:

	HU	MU	SU	N	SD	MD	HD
1. Passing the test.	3%	1%	2%	3%	6%	19%	66
2. Receiving a promotion	3	0	0	4	5	21	67
3. Getting respect from others.	2	1	0	25	26	23	43
4. Being able to use my abilities on the job.	2	0	0	4	5	16	73
5. Having an important job.	2	1	1	7	9	16	65
6. Good working conditions.	4	0	1	11	4	20	60
7. Getting praise for performing well on the job.	6	0	1	14	18	16	44
8. Having feelings of accomplishment when I work.	3	0	2	1	4	20	70
9. Being responsible for my own work	1	0	1	4	1	20	73
10. Making significantly more money.	2	0	1	6	4	14	73

Please mark how much you agree with the following statements:

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	
1	2	3	4	5	
					SD D NO A SA
1. I thought I did well on the test.					1 6 19 47 27
2. I got adequate feedback of my test results.					29 21 16 26 8
3. I was pleased with how the testing session was handled.					15 15 18 42 9

APPENDIX I

Percent Response Distribution For

SELF-CONCEPT SCALE (POSTTEST)

Please circle the number between two words you see which describes you best. Mark down the first answer which comes to you. For example:

	Very Bold	More Bold Than Timid	More Timid Than Bold	Very Timid	
Bold	1	2	3	4	Timid
1. Accepted	39%	51%	6%	3%	Rejected
2. Assertive	34	51	13	2	Submissive
3. Cheerful	49	49	10	2	Depressed
4. Considerate	51	44	4	1	Selfish
5. Contented	26	47	19	7	Worried
6. Easy-Going	49	35	14	2	Quick-Tempered
7. Good-Natured	50	40	9	1	Critical
8. Hopeful	44	39	9	9	Anxious
9. Independent	67	27	5	2	Dependent
10. Optimistic	44	42	10	4	Pessimistic
11. Persevering	50	45	4	2	Quitting
12. Self-controlled	41	50	8	2	Emotional
13. Self-sufficient	50	42	8	0	Easily Influenced
14. Trusting	53	37	8	2	Suspicious
15. Well-adjusted	51	44	3	2	Poorly Adjusted
16. Worthy	64	29	6	2	Unworthy
17. Deliberate	34	48	14	4	Impulsive

	Very Bold	More Bold Than Timid	More Timid Than Bold	Very Timid	
Bold	1	2	3	4	Timid
18. Patient	49	39	8	4	Impatient
19. Poised	39	48	12	1	Awkward
20. Mature	67	28	4	1	Immature

APPENDIX J

Percent Response Distribution For

ATTITUDES TOWARDS TESTING SCALE (POSTTEST)

Please indicate how much you agree with the following statements.

	Strongly Disagree 1	Disagree 2	No Opinion 3	Agree 4	Strongly Agree 5
	SD	D	NO	A	SA
1. Testing is a good way to find out if a person is really suited for a job.	19%	15%	10%	33%	23%
2. Tests give everybody a fair chance to get a job.	20	17	9	37	17
3. Employment tests give a person a good chance to show how capable they are of doing the job.	18	18	10	39	16
4. I don't think tests really can tell who will do well on the job and who won't.	19	30	11	25	16
5. Tests are artificial. They do not measure what a person really does on the job.	24	27	11	30	9
6. Testing is the best way to find the best person for the job.	20	23	18	26	12
7. Companies that use tests to decide who gets a job usually treat workers more like number than human beings.	11	22	35	20	12
8. Employment tests do not really measure a person's true abilities for a job.	19	39	14	18	10
9. Tests can measure important abilities that cannot be determined in an interview.	9	11	16	46	18
10. Testing gives some people a chance to get a job who would not otherwise have an opportunity to get the job.	6	13	11	51	18
11. Using tests helps cut down on favoritism in selecting people for jobs.	20	11	16	32	21
12. Using tests to select people for jobs forces workers to compete against each other too much.	10	16	25	38	11

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
	1	2	3	4	5
					SD D NO A SA
13. Tests are often used as a way to discriminate against minority group members (like females and Blacks).					9 9 19 35 28
14. A person's previous job experience should be more important than his/her tests scores in choosing someone for a job.	22	26	18	30	4
15. I think employment testing is an invasion of privacy.	7	7	21	46	18
16. A person's desire to do a good job can't be measured by employment tests.	29	32	11	19	9
17. People with equal abilities have the same chance for success on the job.	10	16	7	44	23

APPENDIX K

Percent Response Distribution For

ORGANIZATIONAL COMMITMENT SCALE

Please respond to the statements using the following scale:

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
1	2	3	4	5	6	7

	SD	MD	SD	N	SA	MA	SA
1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	1%	0%	0%	9%	9%	34%	47%
2. I talk up this organization to my friends as a great organization to work for.	4	4	5	14	17	23	33
3. I would accept almost any type of job assignment in order to keep working for this organization.	17	9	9	14	16	16	19
4. I find that my values and the organization's values are very similar.	14	8	8	21	16	19	14
5. I am proud to tell others that I am part of this organization.	7	1	1	10	22	29	30
6. This organization really inspires the very best in me in the way of job performance.	9	6	10	9	20	20	26
7. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.	7	2	9	18	14	22	29
8. I really care about the fate of this organization.	3	2	1	9	11	26	48
9. For me this is the best of all possible organizations for which to work.	11	6	11	18	16	16	23

APPENDIX L

Percent Response Distribution For

JOB INVOLVEMENT SCALE

Please respond to the statements using the following scale:

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree							
1	2	3	4	5	6	7							
							SD	MD	SD	N	SA	MA	SA
1. The most important things that happen to me involve my job.							17	10	14	17	19	14	9
2. To me, my job is only a small part of who I am.							21	14	25	8	14	9	9
3. I am very much involved personally in my job.							4	2	4	14	31	25	19
4. I live, eat and breathe my job.							41	10	12	20	9	4	4
5. Most of my interests are centered around my job.							26	13	19	12	14	9	7
6. I have very strong ties with my present job which would be very difficult to break							22	15	15	13	14	11	9
7. Usually I feel detached from my job.							6	4	8	27	20	17	19
8. Most of my personal life goals are job-oriented.							17	11	16	14	19	11	14
9. I consider my job to be very central to my existence.							13	9	14	17	18	17	14
10. I like to be absorbed in my job most of the time.							14	11	12	20	19	11	13

APPENDIX M

Percent Response Distribution For

LIFE SATISFACTION SCALE

On the scale below, please indicate how you feel about the following.
If the item does not apply to you, just leave it blank.

	Delighted	Pleased	Mostly Satisfied	Mixed	Mostly Dissatisfied	Unhappy	Terrible	
	1	2	3	4	5	6	7	
						D	P	MS
						M	MS	U
						T		
1. Your own health.						27	44	22
2. Your family life.						30	43	23
3. Your marriage.						34	39	16
4. Your children.						64	19	12
5. The amount of friendship and love in your life.						39	39	19
6. The amount of respect you get from others.						17	48	29
7. How much you are accepted by others.						18	55	25
8. The way you handle the problems that come up.						16	45	30
9. What you are accomplishing in your life.						11	36	26
10. How interesting your day to day life is.						13	35	30
11. The amount of challenge in your life.						10	30	32
12. The amount of fun and enjoyment you have.						20	35	30
13. The variety and diversity in your life.						13	29	32
14. The amount of relaxation in your life.						10	29	31
15. The way you spend your spare time, your non-work activities.						21	41	26
16. The freedom you have from being bothered and annoyed.						12	35	29
17. Your opportunities for leisure.						9	44	26

Delighted	Pleased	Mostly Satisfied	Mixed	Mostly Dissatisfied	Unhappy	Terrible	
1	2	3	4	5	6	7	
					D	P	MS
					M	MS	U
					T		
18. Nearby places you can use for leisure.					17	34	30
19. How comfortable and well-off you are.					7	28	35
20. The neighborhood you live in.					19	43	25
21. Life in the U.S. today.					25	31	26
22. Your opportunity to change things you do not like.					7	19	31
23. The amount of money you make.					1	12	26
24. The people you work with--your co-workers.					4	49	34
25. The pay and fringe benefits you get, and the security of your job.					6	21	32
26. What it is like where you work--the physical surroundings.					5	26	37
27. The supervision you receive on your job.					5	27	33
28. Your promotional opportunities.					1	13	23
29. Your job as a whole.					7	26	37
30. YOUR LIFE AS A WHOLE.					28	42	23

APPENDIX N

SPANISH CONSENT FORMS

Gracias por participar en ste cuestionario. Estoy estudiando los efectos de pruebas de empleo en personas que tomaron las pruebas. Los resultados de este estudio podra beneficiar a usted y su compania mejordando el proceso de elegir personas para empleo. Les quiero qu les estamos preguntando su nombre es para estar al tanto con las respuestats. Tambien, no estan en ningun riesgo llenado este cuestionario por que sus respuestats al lo siguientes articulos no afectara en cualquier momento si usted recibe el trabajo que esta aplicando. No esta obligando a llenar esta forma y nadien en su compania sabra si lo lleno o no. Desafortunadamente, no estoy en la posicion de ofrecerles dinero por llenar esta forma. Pero, estoy ofreciendo la oportunidad de ayudarme de mejorar el programa de pruebas en su compania.

Si tienen alguna pregunta sobre este proyecto, pro favor sientase libre a llabmare al number (615) 573-4744.

Otra vez, gracias por su cooperacion.

Warren Bobrow
4th Floor Stokely Management Center
University of Tennessee
Knoxville, TN 37916

He leído y entendí el contenido que se describe arriba.

FIRMA

FECHA

APPENDIX O

SPANISH BACKGROUND INFORMATION

Informacion Antecedente

Nombre _____ Compania _____

Su posicion actual _____

La posicion para cual esta aplicando _____

Anos trabajando con esta compania _____ Sexo _____

Edad:

Meno que 21 _____ 21-39 _____ 40-49 _____ - 50-59 _____ Mas que 50 _____

APPENDIX P

SPANISH EXPECTANCY AND INSTUMENALITY SCALES (PRETEST)

POR FAVOR DE INDICAR QUE TAN APROPRIDO CADA UNO DE LO SIGUIENTE ES:

EXTREMADAMENTE IMPROBABLE 1	MODERADAMENTE IMPROBABLE 2	UN POCO IMPROBABLE 3	NEUTRAL 4
UN POCO PROBABLE 5	MODERADAMENTE PROBABLE 6	EXTREMADAMENTE PROBABLE 7	

	EI	MI	UP	N	UP	MP	EP
1. Voy a pasa la puebra.	1	2	3	4	5	6	7
2. Voy a recibir un ascenso si paso is la prueba.	1	2	3	4	5	6	7

SI RECIBO UNA PROMOCION, MI NEUVO POSICION:

3. Me dara mas respecto de mis companeros de trabajo que mi posicio actual.	1	2	3	4	5	6	7
4. Me dara mas oportunidad de usar mis habilidader que mi posicion actual.	1	2	3	4	5	6	7
5. Me dara la oportunidad de tener una posicion importante.	1	2	3	4	5	6	7
6. Me dara mejores condiciones de trabajo que mi posicion actual.	1	2	3	4	5	6	7
7. Me permitira al recibir mas elogio por hacer buen trabajo de lo estoy recibiendo en mi posicion actual.	1	2	3	4	5	6	7
8. Me dara mas sentido de realizacion que mi posicion acutal.	1	2	3	4	5	6	7
9. Me dara mas oportunidad de ser responsable por mi propio trababjo que mi posicion actual.	1	2	3	4	5	6	7
10. Me pagara significante mas dinero que mi posicion actual.	1	2	3	4	5	6	7

POR FAVOR DE INDICAR QUE TAN APROPIADO USTED PIENSE QUE CADA UNO DEL LO SIGUIENTE SERA SI NO PASA LA PRUEBA:

EXTREMADAMENTE IMPROBABLE 1	MODERADAMENTE IMPROBABLE 2	UN POCO IMPROBABLE 3	NEUTRAL 4					
UN POCO PROBABLE 5	MODERADAMENTE PROBABLE 6	EXTREMADAMENTE PROBABLE 7						
		EI	MO	UP	N	UP	MP	EX
11. Voy a recibir un ascenso.		1	2	3	4	5	6	7
12. Voy a recibir mas respecto de los demas companeros de trabajo.		1	2	3	4	5	6	7
13. Tendre un trabajo importante.		1	2	3	4	5	6	7

APPENDIX Q

SPANISH VALENCE SCALE (PRETEST)

PRO FAVOR CONTESTAR LO SIGUIENTE USANDO LA ESCALA:

EXTREMADAMENTE INDESEABLE 1	MODERADAMENTE INDESEABLE 2	UN POCO INDESEABLE 3	NEUTRAL 4
UN POCO DESEABLE 5	MODERADAMENTE DESEABLE 6	EXTREMADAMENTE DESEABLE 7	

Que deseable es:

	EI	MI	UP	N	UP	MD	ED
1. Pasa la prueba.	1	2	3	4	5	6	7
2. Recibir un ascenso.	1	2	3	4	5	6	7
3. Recibir respecto de otros.	1	2	3	4	5	6	7
4. Poder usar mis habilidades en el trabajo.	1	2	3	4	5	6	7
5. Tener un trabajo importante.	1	2	3	4	5	6	7
6. Tener buenas condiciones de trabajo.	1	2	3	4	5	6	7
7. Recibir elogio por hacer un trabajo bien hecho.	1	2	3	4	5	6	7
8. Tener el sentido de realizacion cuando trabajo.	1	2	3	4	5	6	7
9. Ser responsable por mi propio trabajo.	1	2	3	4	5	6	7
10. Hacer significativo mas dinero.	1	2	3	4	5	6	7

POR FAVOR MARQUE QUE TAN DE ACUERDO ESTA CON LO SIGUIENTE:

FUERTAMENTE NO ESTOY DE ACUERDO	NO ESTOY DE ACUERDO	NO TENGO OPINION	ESTOY DE ACUERDO	FUERTAMENTE DE ACUERDO
---------------------------------------	------------------------	---------------------	---------------------	---------------------------

1	2	3	4	5
---	---	---	---	---

	FN	NE	NO	EA	FA
1. Pienso que hice bien en la prueba.	1	2	3	4	5
2. Racibi adecuado informacion de los resultado de la prueba.	1	2	3	4	5
3. Estoy conforme como se conducto la prueba.	1	2	3	4	5

APPENDIX R

SPANISH SELF-CONCEPT SCALE

PRO FAVOR DE PNER UN CIRCULO EN EL NUMERO QUE DESCRIBE ENTRE LAS DOS PALABRAS COMOES USTED. MARQUE LA PRIMERA RESPUESTA QUE PIENSE. POR EJEMPLO:

VALIENTE	MUY VALIENTE 1	MAS VALIENTE QUE TIMIDO 2	MAS TIMIDO QUE VALIENTE 3	MUY TIMIDO 4	TIMIDO
1. Aceptado		1 2	3 4		Rechazado
2. Positivo		1 2	3 4		Sumiso
3. Alegre		1 2	3 4		Deprimido
4. Considerable		1 2	3 4		Egoista
5. Contento		1 2	3 4		Precupado
6. Tranquilo		1 2	3 4		Irascible
7. Buen caracter		1 2	3 4		Criticon
8. Aspirante		1 2	3 4		Ansioso
9. Independiente		1 2	3 4		Dependiente
10. Optimista		1 2	3 4		Pesimista
11. Persevador		1 2	3 4		Desistimiento
12. Dominio de si mismo		1 2	3 4		Emocional
13. Seguro de si mismo	1	2	3 4		Dejarse de influenciar facil
14. Confiado		1 2	3 4		Desconfiado
15. Ajustarse bien		1 2	3 4		Ajestarse mal
16. Digno		1 2	3 4		Indigno
17. Deliberado		1 2	3 4		Impusivo

VALIENTE	MUY VALIENTE 1	MAS VALIENTE QUE TIMIDO 2	MAS TIMIDO QUE VALIENTE 3	MUY TIMIDO 4	TIMIDO
18. Paciente		1 2	3 4		Impaciente
19. Serenidad		1 2	3 4		Torpe
20. Maduro		1 2	3 4		Inamaduro

APPENDIX S

SPANISH ATTITUDES TOWARDS TESTING SCALE

POR FAVOR DE INDICAR QUE TAN DE ACUERDO ESTA CON LO SIGUIENTE:

FUERTAMENTE NO ESTOY DE ACUERDO	NO ESTOY DE ACUERDO	NO TENGO OPINION	ESTOY DE ACUERDO	FUERTAMENTE ESTOY DE ACUERDO					
1	2	3	4	5					
					FN	NE	NT	EA	FA
1.	Haciendo pruebas es una buena manera de saber si una persona es conveniente para un trabajo.	1	2	3	4	5			
2.	Pruebas dan una oportunidad justa a todos para recibir un empleo.	1	2	3	4	5			
3.	Pruebas de empleo dan una buena oportunidad para enseñar que tan encapados son para un trabajo.	1	2	3	4	5			
4.	No creo que pruebas deberas podran decir quien puede hacer un buen trabajo y quien no.	1	2	3	4	5			
5.	Pruebas son artificiles. No pueden medir exactamente lo que realmente hace una persona en el trabajo.	1	2	3	4	5			
6.	Haciendo pruebas es la mejor manera de escoger la mejor persona para un empleo.	1	2	3	4	5			
7.	Companias que usan pruebas para ver quien recibe un empleo usualmente tratan empleados como un numero en lugar de como personas.	1	2	3	4	5			
8.	Pruebas de empleo realmente no juzga la habilidad verdadera de una persona para un empleo.	1	2	3	4	5			
9.	Pruebas pueden medir habilidades importantes que no podran ser determinados en una entrevista.	1	2	3	4	5			
10.	Haciendo pruebas dan a algunas personas la oportunidad de recibir un trabajo que de otra manera no hubiera tenido la oportunidad de recibir.	1	2	3	4	5			

FUERTAMENTE NO ESTOY DE ACUERDO	NO ESTOY DE ACUERDO	NO TENGO OPINION	ESTOY DE ACUERDO	FUIERTAMENTE ESTOY DE ACUERDO	
					FN NE NT EA FA
11. Usando pruebas ayuda cortar en el favoritismo en elegir gente para empleo.					1 2 3 4 5
12. Usando pruebas para elegir gente para empleo fuerza empleados a compatir una contra el otro.					1 2 3 4 5
13. Pruebas se usan a verces como una manera de descriminacion contra miembros de grupos de miembros de grupos de minoria (como mujeres y Negros).					1 2 3 4 5
14. La experiencia de trabajo previo de una persona debera ser mas importante que el resultado de una prueba para elegir a una persona para un empleo.					1 2 3 4 5
15. Pienso que prubas de empleo es una invasion de mi vida privada.					1 2 3 4 5
16. El deseo de una persona para hacer un buen trabajo no se puede medir con pruebas de empleo.					1 2 3 4 5
17. Gente con habilidades iguales tienen la misma oportunidad para exito en el trabajo.					1 2 3 4 5

APPENDIX T

SPANISH EXPECTANCY AND INSTRUMENTALITY SCALES (POSTTEST)

POR FAVOR DE INDICAR QUE TAN APROPRIDO CADA UNO DE LO SIGUIENTE ERA CUANDO TOMO LA PRUEBA:

EXTREMADAMENTE IMPROBABLE 1	MODERADAMENTE IMPROBABLE 2	UN POCO IMPROBABLE 3	NEUTRAL 4
UN POCO PROBABLE 5	MODERADAMENTE PROBABLE 6	EXTREMADAMENTE PROBABLE 7	

	EI	MI	UP	N	UP	MP	EP
1. Pienso que paso la prueba.	1	2	3	4	5	6	7
2. Hubiera recibido un ascenso si hubiera pasada la prueba.	1	2	3	4	5	6	7

Si hubiera recibido un ascenso, mi trabajo nuevo seria:

3. Darmre mas respecto de mis companeros de trabajo que mi posicio actual.	1	2	3	4	5	6	7
4. Darne mas oportunidad de usar mis habilidades que mi posicion actual.	1	2	3	4	5	6	7
5. Darne la oportunidad de tener una posicion importante.	1	2	3	4	5	6	7
6. Darne mejores condiciones de trabajo que mi posicion actual.	1	2	3	4	5	6	7
7. Permitir al recibir mas elogio por hacer buen trabajo de lo estoy recibiendo en mi posicion actual.	1	2	3	4	5	6	7
8. Darne mas sentido de realizacion que mi posicion acutal.	1	2	3	4	5	6	7
9. Darne mas oportunidad de ser responsable por mi propio trababjo que mi posicion actual.	1	2	3	4	5	6	7
10. Pagarme significante mas dinero que mi posicion actual.	1	2	3	4	5	6	7

POR FAVOR DE INDICAR QUE APROPIADO CADA UNO DEL LO SIGUIENTE HUBIERA SIDO SI NO PASOS LA PRUEBA:

EXTREMADAMENTE
IMPROBABLE
1

MODERADAMENTE
IMPROBABLE
2

UN POCO
IMPROBABLE
3

NEUTRAL
4

UN POCO
PROBABLE
5

MODERADAMENTE
PROBABLE
6

EXTREMADAMENTE
PROBABLE
7

	EI	MO	UP	N	UP	MP	EX
11. Hubiera recibir un ascenso.	1	2	3	4	5	6	7
12. Hubiera recibir mas respecto de los demás compañeros de trabajo.	1	2	3	4	5	6	7
13. Hubiera tenido un trabajo importante.	1	2	3	4	5	6	7

APPENDIX U

SPANISH VALENCE SCALE (POSTTEST)

PRO FAVOR CONTESTAR LO SIGUIENTE CON LA ESCALA:

EXTREMADAMENTE INDESEABLE 1	MODERADAMENTE INDESEABLE 2	UN POCO INDESEABLE 3	NEUTRAL 4
UN POCO DESEABLE 5	MODERADAMENTE DESEABLE 6	EXTREMADAMENTE DESEABLE 7	

Que deseable es:

	EI	MI	UP	N	UP	MD	ED
1. Pasa la prueba.	1	2	3	4	5	6	7
2. Recibir una ascenso.	1	2	3	4	5	6	7
3. Recibir respecto de otros.	1	2	3	4	5	6	7
4. Poder usar mis habilidades en el trabajo.	1	2	3	4	5	6	7
5. Tener un trabajo importante.	1	2	3	4	5	6	7
6. Tener buenas condiciones de trabajo.	1	2	3	4	5	6	7
7. Recibir elogio por hacer un trabajo bien hecho.	1	2	3	4	5	6	7
8. Tener el sentido de realizacion cuando trabajo.	1	2	3	4	5	6	7
9. Ser responsable por mi propio trabajo.	1	2	3	4	5	6	7
10. Hacer significativo mas dinero.	1	2	3	4	5	6	7

POR FAVOR MARQUE QUE TAN DE ACUERDO ESTA CON LO SIGUIENTE:

FUERTAMENTE NO ESTOY DE ACUERDO	NO ESTOY DE ACUERDO	NO TENGO OPINION	ESTOY DE ACUERDO	FUERTAMENTE DE ACUERDO
---------------------------------------	------------------------	---------------------	---------------------	---------------------------

1	2	3	4	5
---	---	---	---	---

	FN	NE	NO	EA	FA
1. Pienso que hice bien en la prueba.	1	2	3	4	5
2. Racibi adecuado informacion de los resultado de la prueba.	1	2	3	4	5
3. Estoy conforme como se conducto la prueba.	1	2	3	4	5

APPENDIX V

SPANISH ORGANIZATIONAL COMMITMENT SCALE

POR FAVOR DE COTESTAR USANDO LA SIGUIENTE ESCALA:

FUERTAMENTE NO ESTOY DE ACUERDO 1	MODERAMENTE NO ESTOY DE ACUERDO 2	UN POCO DESACUERDO 3	NEUTRAL 4
UN POCO DE ACUERDO 5	MODERAMENTE DE ACUERDO 6	FUERTAMENTE DE ACUERDO 7	

- | | FN | MN | UP | N | UP | MD | FD |
|--|----|----|----|---|----|----|----|
| 1. Estoy dispuesto a poner suficiente esfuerzo, mas de normalmente se espera, para ayudar que esta organizacion se supere. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Les digo a mis amistades que esta organizacion es maginfico para trabajar. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Para seguir trabajando para esta organizacion aceptare casi cualquier trabajo. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Encuentro que mis propio valores y de esta organizacion son muy similares. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Estoy orgulloso de decir que soy parte de esta organizacion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Esta organizacion realmente inspirar lo mejor en mi manera de hacer el trabajo. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Estoy extrenamente agradecido que escogi este organizacion para trabajar en lugar de los ostros que habia considerado en el tiempo que entre a trababajar aqui. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Realmente me importa el futuro de este organizacion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Para mi este es el mejor de todo posible organizaciones para trabajar. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

APPENDIX W

SPANISH JOB INVOLVEMENT SCALE

POR FAVOR DE CONTESTAR USANDO LA SIGUIENTE ESCALA:

FUERTAMENTE NO ESTOY DE ACUERDO 1	MODERAMENTE NO ESTOY DE ACUERDO 2	UN POCO DESACUERDO 3	NEUTRAL 4
UN POCO DE ACUERDO 5	MODERAMENTE DE ACUERDO 6	FUERTAMENTE DE ACUERDO 7	

	FN	MN	UP	N	UP	MD	FD
1. Las cosa mas importantes que me pasen envuleven mi empleo.	1	2	3	4	5	6	7
2. Para mi el trabajo solamente es un parte chica de quien soy.	1	2	3	4	5	6	7
3. Estoy muy enveulto personalmente en mi empleo.	1	2	3	4	5	6	7
4. Vivo, como, y repiro mi empleo.	1	2	3	4	5	6	7
5. La majoria de mis intereses estan concentrados sobre mi empleo.	1	2	3	4	5	6	7
6. Tengo mey fuertes ataduras con mi empleo presente que encuentare mey difcil de romper.	1	2	3	4	5	6	7
7. Usualmente me siento independiente de mi empleo.	1	2	3	4	5	6	7
8. La majoria de la metas de mi vida persnal son orientadas sobre el empleo.	1	2	3	4	5	6	7
9. Considero que mi emleo es el centro de mi exitencia.	1	2	3	4	5	6	7
10. Me gusta que el trabajo me ocupa todo el tiempo.	1	2	3	4	5	6	7

APPENDIX X

SPANISH LIFE SATISFACTION SCALE

USANDO LE SIGUIENTE ESCALA, POR FAVOR DE INDICAR QUE SIENTE DE LOS SIGUIENTE: SI EL ARTICULO NO ES APLICADO A USTED, DEJELO VACIO.

ENCANTADO	CONTENTO	SATISFECHO	CONTRADICTORIO						
1	2	3	4						
DESCONTENDO	DESGRACIADO	TERRIBLE							
5	6	7							
			E	C	S	C	D	D	T
1. Su propia salud.			1	2	3	4	5	6	7
2. Su vida familiar.			1	2	3	4	5	6	7
3. Su matrimonio.			1	2	3	4	5	6	7
4. Sus niños.			1	2	3	4	5	6	7
5. La cantidad de amistades y amores en su vida.			1	2	3	4	5	6	7
6. La cantidad de respecto que recibe de otros.			1	2	3	4	5	6	7
7. Que tanto es aceptado por otros.			1	2	3	4	5	6	7
-									
8. La manera que resuelve problemas.			1	2	3	4	5	6	7
9. La gente con quien trabaja.			1	2	3	4	5	6	7
10. Lo que a logrado en la vida.			1	2	3	4	5	6	7
11. Que tan interesante su día diara es.			1	2	3	4	5	6	7
12. La cantidad de desafio en su vida.			1	2	3	4	5	6	7
13. La cantidad de placer y diversion que tiene.			1	2	3	4	5	6	7
14. La variedad y diverdisdad en su vida.			1	2	3	4	5	6	7
15. La cantidad de reposo en su vida.			1	2	3	4	5	6	7
16. La manera que usa su tiempo libre, no relacionado con el trabajo.			1	2	3	4	5	6	7

ENCANTADO	CONTENTO	SATISFECHO	CONTRADICTORIO						
1	2	3	4						
DESCONTENDO	DESGRACIADO	TERRIBLE							
5	6	7							
			E	C	S	C	D	D	T
17. La libertad que tiene de no ser molestado y fastidiado.			1	2	3	4	5	6	7
18. Su oportunitides para tiempo libre.			1	2	3	4	5	6	7
19. Lugares cercanos que puede usar para su tiempo libre.			1	2	3	4	5	6	7
20. Que tan comodo y prospero es.			1	2	3	4	5	6	7
21. El barrio donde vive.			1	2	3	4	5	6	7
22. La vida en los Estados Unidos.			1	2	3	4	5	6	7
23. Su opoortunidad para combiar cosas desagradables.			1	2	3	4	5	6	7
24. La cantidad de dinero que hace.			1	2	3	4	5	6	7
25. La gente con quien trabajar.			1	2	3	4	5	6	7
26. El suldo, beneficios, y la seguridad de trabajo.			1	2	3	4	5	6	7
27. El ambiente de su trabajo.			1	2	3	4	5	6	7
28. La supervision que recibe en el trabajo.			1	2	3	4	5	6	7
29. Las oportunidades para supera.			1	2	3	4	5	6	7
30. Su trabajo entero.			1	2	3	4	5	6	7
31. Su vida entera.			1	2	3	4	5	6	7

VITA

Warren Scott Bobrow was born in Hollywood, California, on July 28, 1963. He attended public schools in Westminster, California until graduating high school in 1981. In September of 1981, he entered the University of California, Irvine, and, in June, 1985, received a Bachelor of Arts Degree. He then moved to Tennessee to enter the graduate program in Industrial and Organizational Psychology in September of 1985. He completed the requirements for his Ph.D. in December of 1988 and will graduate in May of 1989.

The author is a member of the American Psychological Association and the Academy of Management. His professional interest include employee selection, work and nonwork linkages and organizational culture and climate. He will be returning to Southern California after completing the requirements for the Ph.D. He will then work for Professional Resource Group, a management consulting firm with offices in Huntington Beach, California and Roswell, Georgia.

The author's leisure interests include music, fishing and going to the Pacific ocean. After graduating, the author plans to travel extensively in Europe, Australia and South America.