



Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

CAHRS Working Paper Series

Center for Advanced Human Resource Studies
(CAHRS)

August 1994

Effects of Selection Systems on Job Search Decisions

Timothy A. Judge
Cornell University

Donna Blancero
Arizona State University

Daniel M. Cable
Cornell University

Diane E. Johnson
Cornell University

Follow this and additional works at: <http://digitalcommons.ilr.cornell.edu/cahrswp>

This Article is brought to you for free and open access by the Center for Advanced Human Resource Studies (CAHRS) at DigitalCommons@ILR. It has been accepted for inclusion in CAHRS Working Paper Series by an authorized administrator of DigitalCommons@ILR. For more information, please contact hlmdigital@cornell.edu.

Effects of Selection Systems on Job Search Decisions

Abstract

On the basis of Gilliland's (1993) model of selection system fairness, the present study investigated the relationships between selection procedures, perceived selection system fairness, and job search decisions in both hypothetical and actual organizations. We conducted two studies to test the model. In Study 1, we used an experimental method to examine job seekers' perceptions of, and reactions to, five widely used selection procedures. Results suggested that applicants viewed employment interviews and cognitive ability tests as more job related than biographical inventories (biodata), personality tests, and drug tests, and that job relatedness significantly affected fairness perceptions, which in turn affected job search decisions. Study 2 examined the hypothesized relationships between the selection systems and job seekers' pursuit of actual, relevant organizations. Results from both studies offer support for the hypothesized model, suggesting that selection tests have differential effects on perceived selection system validity and fairness, which affect subsequent job search decisions.

Keywords

job, search, study, procedures, relationships, selection, system, fairness, applicants, employment, interview, test

Comments

Suggested Citation

Judge, T. A., Blancero, D., Cable, D. M. & Johnson, D. E. (1994). *Effects of selection systems on job search decisions* (CAHRS Working Paper #94-15). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies.
<http://digitalcommons.ilr.cornell.edu/cahrswp/239>

WORKING PAPER SERIES

Effects of Selection Systems on Job Search Decisions

Timothy A. Judge
Donna Blancero
Daniel M. Cable
Diane E. Johnson

Working Paper 94 - 15



Effects of Selection Systems on Job Search Decisions

Timothy A. Judge

Center for Advanced Human Resource Studies

School of Industrial and Labor Relations

Cornell University

Donna Blancero

Department of Management

Arizona State University

Daniel M. Cable and Diane E. Johnson

Department of Human Resource Studies

School of Industrial and Labor Relations

Cornell University

Working Paper #94-15

Author Notes: The last three authors contributed equally to this study; their names are listed alphabetically. The authors thank Bob Bretz for assistance with the conceptualization and design of this study. Correspondence regarding this manuscript should be addressed to Timothy A. Judge, Department of Human Resource Studies, School of Industrial and Labor Relations, 393 Ives Hall, Cornell University, Ithaca, New York 14853-3901. This paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of Center research, conferences, and projects available to others interested in human resource management in preliminary form to encourage discussion and suggestions.

Running Head: SELECTION SYSTEMS AND JOB SEARCH DECISIONS

Abstract

On the basis of Gilliland's (1993) model of selection system fairness, the present study investigated the relationships between selection procedures, perceived selection system fairness, and job search decisions in both hypothetical and actual organizations. We conducted two studies to test the model. In Study 1, we used an experimental method to examine job seekers' perceptions of, and reactions to, five widely used selection procedures. Results suggested that applicants viewed employment interviews and cognitive ability tests as more job related than biographical inventories (biodata), personality tests, and drug tests, and that job relatedness significantly affected fairness perceptions, which in turn affected job search decisions. Study 2 examined the hypothesized relationships between the selection systems and job seekers' pursuit of actual, relevant organizations. Results from both studies offer support for the hypothesized model, suggesting that selection tests have differential effects on perceived selection system validity and fairness, which affect subsequent job search decisions.

Effects of Selection Systems on Job Search Decisions

Research on employee selection traditionally has focused on the empirical and content validity of selection techniques. Although such a focus has served selection research well, researchers increasingly have emphasized that applicant perceptions also are an important consideration in evaluating selection processes (Gilliland, 1993, in press; Rynes, 1993; Rynes & Connerley, 1993; Schmitt & Gilliland, 1992; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993). An expanding empirical literature has demonstrated that different selection procedures provoke different reactions from applicants (Gilliland, in press; Rynes & Connerley, 1993; Smither et al., 1993). Although a number of applicant reactions may relate to their perceptions of selection systems (e.g., legal claims, performance after hire, recommendations, job satisfaction), perhaps the most closely connected outcomes of selection system perceptions are applicants' job search decisions. As Howell and Dipboye (1982) suggested, applicants' perceptions of organizations' selection procedures may influence applicants' attitudes towards the recruitment process, and they may exert less effort in pursuing a particular organization if they perceive the procedures as invalid. In fact, a number of researchers have posited that applicants base their job search decisions in part on organizations' personnel policies by making inferences about other less observable aspects of the organization (Cable & Judge, 1994; Rynes, Bretz, & Gerhart, 1991). Because selection systems present applicants with an initial image of the organization, candidates' reactions to selection systems may influence an organization's ability to attract qualified applicants (Gilliland, 1993; Rynes & Connerley, 1993; Smither et al., 1993).

Although researchers have hypothesized that selection systems affect job search decisions (Gilliland, 1993, in press; Herriot, 1989; Thornton, 1993), little empirical evidence exists. Most investigations of the effect of selection systems on job seekers' decisions have examined isolated selection tests rather than holistic selection systems (Kluger & Rothstein, 1993; Smither et al., 1993). For example, studies have investigated applicants' reactions to drug testing (Crant & Bateman, 1990; Murphy, Thornton, & Reynolds, 1990), recruiters (Harris & Fink, 1987; Rynes et al., 1991), interviews (Powell, 1991), and honesty tests (Ryan & Sackett, 1987). Although these studies have provided an indication that applicants' perceptions of specific selection methods may affect their attraction to organizations, we are unaware of any research that has examined the influence of total selection systems on applicants' job search decisions. This appears to be an important omission because organizations generally use several selection methods rather than isolated measures. In fact, researchers have cited the piecemeal nature of the research concerning applicant reactions to selection procedures as a significant theoretical shortcoming (Gilliland, 1993; Herriot, 1989; Smither et al., 1993).

Furthermore, applicants' reactions to selection systems may influence their perceptions of fairness of these procedures (Gilliland, 1993, in press; Smither et al., 1993). This may be an important consideration given the significant effect of fairness perceptions on human resource outcomes (Greenberg, 1990). Research has demonstrated that applicants' perceptions of job relatedness (a key link to procedural fairness) of different selection methods influence their overall perceptions of fairness (Gilliland, in press; Schmitt, Gilliland, Landis, & Devine, 1993; Smither et al., 1993). Thus, if individuals perceive that selection techniques are job related, they may be more likely to perceive those processes as fair and, in turn, may be more likely to accept job offers from those organizations employing such procedures. Accordingly, the goal of this paper is to examine the system of relationships among a number of widely used selection procedures, the perceived job relatedness and fairness of those selection systems, and job search decisions.

Relevant Theory and Past Research

Recently, researchers have proposed several models concerning the relationships between selection systems, applicant perceptions, and job search decisions (Arvey & Sackett, 1993; Gilliland, 1993; Herriot, 1989; Iles & Robertson, 1989; Schuler, 1993; Thornton, 1993). Herriot (1989) suggested that recruitment and selection procedures are critical determinants of job seekers' decisions, and represent the first part of a developing relationship between the organization and candidates. Thornton (1993) apparently agreed in viewing selection processes as initial opportunities for applicants to learn about the organization and described the effects of environmental and individual factors on candidates' perceptions which influence job search decisions. According to Schuler's (1993) model, these perceptions result in a construct he termed social validity, which incorporates several components of selection situations such as task relevance. Similarly, Iles and Robertson (1989) proposed the concept of impact validity, suggesting that selection procedures have a psychological impact on applicants' perceptions and may attract or alienate individuals from organizations. Finally, Arvey and Sackett's (1993) proposed a model based on the issue of fairness and suggested that the content of selection systems must be job related to be perceived as fair, particularly if organizations wish to avoid legal difficulties. Although these models have important differences, each focuses on the ways in which social, cognitive, and affective reactions influence applicant perceptions of organizations and thus are complementary rather than competing.

Gilliland's (1993) framework, based on organizational justice theories, significantly guided the present research. In particular, his model is firmly grounded in psychological theory rather than representing a catalogue of possible determinants of fairness perceptions (Gilliland,

1993). Recently, a number of researchers have supported components of Gilliland's (1993) model. Rynes and Connerley (1993) found that applicants preferred some selection tests over others based on the tests' perceived content validity or job relatedness. Similarly, Kluger and Rothstein (1993) found that subjects reacted differently to four selection measures depending on the level of test difficulty. However, both of these studies concentrated on directly assessing perceptions of specific tests, not reactions to holistic selection systems. Furthermore, these studies did not directly examine how selection systems affect applicants' job search decisions. Smither et al. (1993) undertook two studies to investigate applicant reactions to selection procedures. In their first study, results confirmed that applicants perceived different procedures as possessing different levels of job relatedness as well as predictive validity; however, the two did not necessarily coincide. Furthermore, perceptions of predictive validity did not always agree with the actual statistical validity of the particular selection method. In their second study, applicants who believed that the selection method possessed predictive validity and face validity (job-relatedness) were more attracted to the organization. However, organizational attractiveness was defined in part by perceptions of pay level and promotion opportunity, which should represent antecedents of organizational attractiveness (Judge & Bretz, 1992; Jurgensen, 1978), and which may imply bias in the results due to common method variance. Applicants who believed that the selection method possessed predictive validity and face validity also were more likely to recommend the organization to others. However, because respondents reported their perceptions of one selection test of a single, specific organization, their perceptions of the organization may have influenced their perceptions of that organization's selection system. One further finding suggested that applicants who perceived the selection tests as less valid also perceived them as unfair.

In summary, past theory and research have suggested that applicants perceive different selection tests to possess differential validity and these perceptions do not necessarily correspond to actual statistical validity. Additionally, these varying perceptions of validity or job relatedness appear to influence job seekers' fairness perceptions of selection systems and may influence their perceptions of organizations using those systems. However, it appears that several gaps remain in this literature. First, empirical tests of individuals' perceptions of selection tests have been assessed through direct questioning (Rynes & Connerley, 1993; Smither et al., 1993). Research has revealed that eliciting responses with direct estimation techniques may generate results that differ from actual perceptions, provide little indication of how applicants use rankings in actual decision making, may demand greater self-insight than decision makers likely possess, and may be subject to social desirability (Jurgensen, 1978;

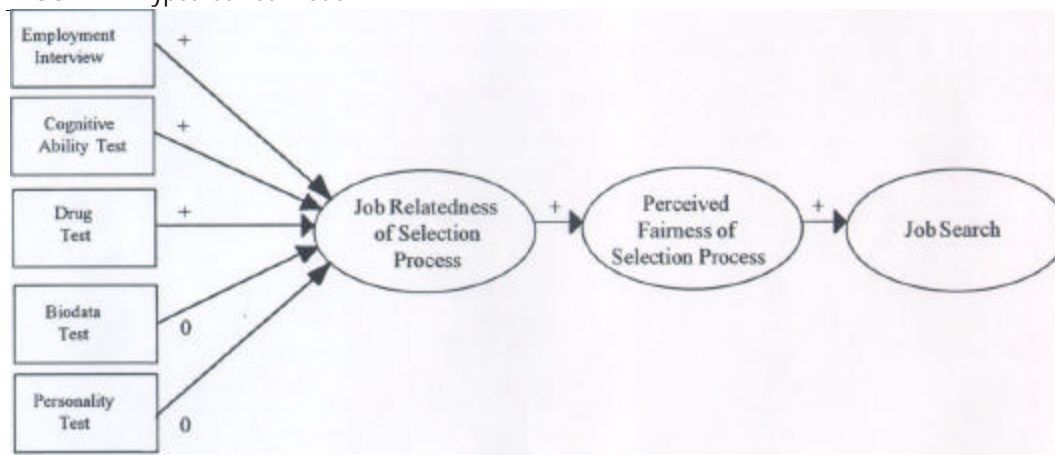
Schwab, Rynes, & Aldag, 1987). Second, past research on selection system perceptions largely has ignored the potential for differences between job seekers in their perceptions and reactions (Murphy et al., 1990). This could be an important omission because organizations may be unwittingly screening certain types of applicants based on the selection procedures they use. Third, although several selection system models and one comprehensive model of selection system fairness have been proposed (Gilliland, 1993), we are unaware of any empirical research that has tested an entire system of relationships. Finally, although past research has shown that job seekers' perceptions covary with perceived selection system fairness, we are not aware of research that has examined whether job seekers' perceptions translate into behaviors (e.g., job search decisions).

Thus, the present paper seeks to further research on applicant reactions to selection systems in several ways. First, this paper provides the first experimental investigation of the relationships between a selection system's perceived validity and fairness and applicants' job search decisions. Second, individual differences in job seekers' perceptions of selection procedures are investigated, as well as the effects of selection measures on fairness perceptions and job search decisions. Finally, this study examines the effects of actual organizations' perceived selection systems on actual job search decisions.

Hypotheses

In general, we expected results to support the model presented by Gilliland (1993). However, the entire model is quite comprehensive, and we chose to test only the aspects of it depicted in Figure 1. In this preliminary test of Gilliland's model, we chose to investigate five commonly used selection tests: employment interviews, cognitive ability tests, biodata inventories, personality tests, and drug tests. We organize our hypotheses by the three dependent variables of interest: job relatedness, fairness perceptions, and job search decisions.

FIGURE 1: Hypothesized Model



Job Relatedness

Gilliland (1993) suggested that the job relatedness of a selection device is perhaps the most important procedural influence on fairness perceptions. Gilliland (1993) referred to job relatedness as the perceived validity of a selection test from both a content validity sense (test content related to job content) and a criterion-related validity sense (i.e., performance on the test is likely to statistically predict performance on the job). Smither et al. (1993) also distinguished between applicants' perception of the job relatedness of the content of a selection procedure and how the selection procedure predicts future job performance. However, it may be difficult for applicants to make judgments of job relatedness based on perceptions of content validity since it is often not clear or even known, at the time of testing, what the job content actually is. On the other hand, candidates are more likely to assess whether a selection test is relevant for predicting how they might perform on a job because they should be aware of many of their own abilities necessary to perform in general. Accordingly, the present study examines job relatedness as candidates' perceptions of the ability of the selection process to identify the best individuals to perform the job. Based on past theory and research, we also make hypotheses about the specific job relatedness of each selection measure. These hypotheses are described below.

Employment interviews. Decades of research have demonstrated that the employment interview has limited predictive validity (Arvey & Campion, 1982; Hunter & Hunter, 1984), although more recent analyses have suggested that the validities for both structured and unstructured interviews may be better than traditionally assumed (Schmidt, Ones, & Hunter, 1992). Nonetheless, most applicants believe the interview is an essential component of the selection process (Rynes & Gerhart, 1990). Perhaps because almost all organizations use at

least one interview in their selection process (Howell & Dipboye, 1982), job seekers may assume that assessments made during the interview are related to performance on the job. Accordingly, research by Schuler (1993) suggested that individuals viewed the employment interview as the most suitable measure of relevant abilities. Smither et al. (1993) also found that applicants perceived interviews as more job related than other procedures. Similarly, Rynes and Connerley (1993) found that the interview was perceived to possess high job relatedness. Schuler (1993) suggested that selection methods which are perceived as controllable by the candidate, obvious in purpose, providing task relevant information, and offering a means of feedback are considered the most socially valid or acceptable. The interview would appear to offer all of these components, giving the appearance of job relatedness. Thus, applicants may perceive the interview as a mutual exchange of relevant information predictive of future performance and therefore job related.

H1a: Organizational use of the employment interview will increase applicant perceptions of the job relatedness of the selection process.

Cognitive ability tests. Research consistently has demonstrated that cognitive ability tests are one of the most empirically valid selection methods across organizations and job types (Hunter & Hunter, 1984). Although job seekers may not be aware of these empirical findings, it is probably evident that intelligence should be related to performance on many types of jobs. However, little evidence is available concerning applicants' perceptions on cognitive ability tests. Smither et al. (1993) characterized eight cognitive ability tests as either concrete (vocabulary, mathematical word problems) or abstract (letter sets, quantitative comparisons) and found that concrete cognitive ability test items were viewed as job related while abstract test items were not. Contrary to these findings, Rynes and Connerley (1993) demonstrated that applicants thought companies had little need for information obtained from a cognitive ability test. However, "company's need to know" may represent a different construct than job relatedness, or the ability of the test to predict future performance.

Thus, although researchers have found that some types of cognitive ability questions may be perceived as unrelated to job performance, we hypothesized that a widely used, overall cognitive ability test should be perceived as job related. Actual cognitive ability tests (e.g., Wonderlic Personnel Test) usually contain both "abstract" and "concrete" items, and presumably job seekers respond to the test as a whole, rather than to individual questions. Furthermore, job seekers aspiring to managerial positions are likely to be cognizant of the fact that many important selection decisions affecting them are made on the basis of tests which tap

cognitive abilities (e.g., SAT, GRE, GMAT) since these candidates probably have pursued some education beyond high school and thus have been exposed to these tests (Graham, 1991). Thus, given college students' exposure to cognitive tests prior to and during college, applicants for most managerial positions should view cognitive ability tests as predictive of future job performance.

H1b: Organizational use of a general cognitive ability test will increase applicant perceptions of the job relatedness of the selection process.

Drug tests. Drug testing is becoming more common in organizations and appears to be a valid predictor of job performance (Normand, Salyards, & Mahoney, 1990), although its validity is not universally accepted (Schmidt et al., 1992). Several researchers have examined applicants' reactions to drug tests but, here too, the evidence is mixed. Murphy et al. (1990) examined college students' attitudes towards drug testing and found that individuals' attitudes towards these tests varied depending upon the circumstances leading to testing. Subjects viewed random testing, testing on suspicion, and indiscriminate background checks less favorably than testing applicants with a known history of drug abuse, or testing all individuals. Rynes and Connerley (1993) suggested that individuals perceived drug testing to be more essential for organizations to make selection decisions than most other selection devices. Only Crant and Bateman (1990) examined the effects of drug testing on job search decisions. They found that participants had more positive attitudes and intentions towards a company that did not test for drugs than a company that implemented drug testing programs, suggesting that potential applicants may prefer not to work for organizations perceived to have possible drug related personnel problems. However, these authors also found that organizations' perceived need for the program and applicants' subjective norms also influenced the effects of drug testing on applicants' perceptions. Despite these mixed results, the above evidence suggests that applicants regard drug testing more favorably when there is a perceived necessity for such tests. We did not specify any necessity for this selection test because it is our experience that in most cases, college recruiters do not explicitly justify their selection techniques. Thus, we hypothesize that, in general, applicants will not perceive drug tests as job related.

H1c: Organizational use of a drug test will not increase applicant perceptions of the job relatedness of the selection process.

Biodata inventories. Cumulative evidence suggests that biodata tests have reasonable empirical validity (Hunter & Hunter, 1984; Schmidt et al., 1992) and may generalize across organizations (Rothstein, Schmidt, Erwin, Owens, & Sparks, 1990). Although biodata inventories contain many questions that appear almost wholly unrelated to job performance

(Mael, 1991), little direct evidence is available concerning applicants' perceptions of biodata inventories. Smither et al. (1993) found that biodata tests were viewed as possessing low job relatedness, at least significantly less than simulations, interviews, and cognitive ability tests with concrete items. On the other hand, Kluger and Rothstein (1993) found that biodata items were viewed more favorably than cognitive ability exams, leading to greater perceptions of test fairness and predictive performance. These latter researchers found, however, that perceptions of the favorability these tests were a function of the difficulty of the tests. Kluger and Rothstein (1993) did not specifically inquire about the job relatedness of these selection measures and so no real conclusions can be drawn. However, Mael (1991) presented a reasonable case for the need for biodata items to be more "visibly job relevant," suggesting that current biographical inventories may lack such items. As a result, based on current biodata tests, we hypothesize that applicants are most likely to view biodata as possessing low job relatedness.

H1d: Organizational use of a biodata inventory will not increase applicant perceptions of the job relatedness of the selection process.

Personality tests. Past research has suggested that personality tests are weak predictors of job performance (Guion & Gottier, 1965; Hunter & Hunter, 1984; Schmidt et al., 1992). Recent research using the big five framework has found higher empirical validities for personality tests, although they still lag behind other selection measures (Barrick & Mount, 1991). From an applicant's standpoint, a factor that may lead to concerns about the job relatedness of personality tests is the subjective and personal nature of the questions asked in these tests (Jones, Ash, & Soto, 1990). From a social-psychological viewpoint, applicants may not perceive personality tests to be useful predictors of job performance because they may not feel that their personality differs enough from other applicants to permit prediction (Gilovich, 1990). The evidence that is available concerning job seekers' perceptions of personality tests suggests that they view personality tests as unrelated to job performance. Rynes and Connerley (1993) found that job seekers believed personality tests were less necessary for companies to make accurate selection decisions than most other selection procedures. Similarly, research reported by Schuler (1993) found that 46% of applicants had no idea how a personality test could be interpreted by organizations, and that 31% could not imagine how qualifications could be assessed with a personality inventory. Smither et al. (1993) found that newly hired managers perceived personality tests as the 13th least-valid predictor of job performance of 14 selection tools. Thus, based on past research, we do not expect that applicants will see personality tests as job related.

H1e: Organizational use of a personality test will not increase applicant perceptions of the job relatedness of the selection process.

Fairness Perceptions

According to Gilliland (1993) and other researchers (Arvey & Sackett, 1993; Leventhal, 1980; Schuler, 1993), the job relatedness or perceived validity of the tests comprising a selection system should directly affect job seekers' fairness perceptions of a total selection system. Fairness or justice perceptions consist of two components: procedural and distributive. Distributive justice, rooted in equity theory, focuses on the perceived fairness of outcomes. Procedural justice is concerned with the perceived fairness of the processes used in allocating outcomes (Folger & Greenberg, 1985). Recent selection research has demonstrated that both components of fairness perceptions are highly correlated (Gilliland, in press; Smither et al., 1993). However, procedural fairness is most relevant for the present study because we are focusing on perceptions of selection processes as well as applicants' perceptions of job relatedness. The present study does not investigate how fair a job offer (outcome) is or how applicants react to rejections versus offers, but rather it investigates how applicants' perceptions of job relatedness and fairness of selection processes before hiring decisions are made.

Gilliland (in press) found that a selection system's perceived job relatedness influenced applicants' procedural fairness perceptions which, in turn, affected applicants' recommendation intentions. Other empirical studies also provide direct support for these theoretical propositions (Kluger & Rothstein, 1991; Schmitt et al., 1993; Smither et al., 1993). Thus, consistent with past theory and research, we hypothesized that applicants' perceptions of the fairness of selection processes will be influenced by their perceptions of the job relatedness of these processes.

H2: The perceived job relatedness of a selection system will affect job seekers' procedural fairness perceptions of the selection system.

Job Search Decisions

Researchers have suggested that fairness perceptions have powerful effects on a multitude of attitudes and behaviors in the employment context (Greenberg, 1990). Judge and Bretz (1992) found that the degree to which organizations promoted fairness as a work value influenced job search decisions of applicants, and were more influential than either pay or promotional opportunities. Gilliland (1993) proposed that the degree to which applicants perceive a selection system as procedurally fair should affect their job search decisions. Although no research has examined the effects of total selection system fairness on job search decisions, several studies offer indirect support for Gilliland's (1993) proposal. Reilly, Stoffey, and Millsap (1991) found that applicants' attitudes toward an employer were more influenced by

their perceptions of test fairness than the actual test results, and Kluger and Rothstein (1993) found that individuals' fairness perceptions about selection tests were related to their image of the organization. Gilliland (in press) demonstrated that applicants' procedural justice perceptions were related to their work performance and recommendation intentions, and Smither et al. (1993) found that applicants' procedural fairness perceptions about a selection method were related to organizational attractiveness and willingness to recommend the organization to others. Taken together, these results suggest that applicants' perceptions of procedural fairness of selection processes will influence their decisions to pursue organizations.

H3: The perceived procedural fairness of a selection system will affect applicants' job search decisions.

Control Variables

In addition to manipulating selection practices, pay and promotion opportunities also were included in Study 1 because past research has suggested their importance in job search decisions (Judge & Bretz, 1992; Jurgensen, 1978). Furthermore, research suggests that the effects of nonpecuniary attributes cannot be properly interpreted unless pecuniary attributes also are manipulated (Rynes, Schwab, & Heneman, 1983). Consistent with past research, we expected that these variables would have significant effects on job seekers' preferences (Judge & Bretz, 1992; Jurgensen, 1978).

To control for individual differences that may account for the observed relationships among the core variables, several control variables were included in the estimated models (see Figures 2 & 3). Past research suggests that negative affectivity may control for self-report bias and yield better estimates of the "true" substantive relations (see Burke, Brief, & George, 1993). Thus, it was used to predict all three core variables. Because prior rejection from particular selection procedures may influence applicants' views of the merits of those procedures (Dreher & Sackett, 1983), the number of previous rejections was instituted as a control variable in predicting perceived job relatedness. Because perceived job relatedness should logically increase as the number of predictors used in the selection process increases, the number of predictors used also was instituted as a control variable. Prior coursework in staffing may influence perceptions of validity because of the material learned in class. Therefore, we controlled for whether the job seeker had taken a prior course in staffing. Although past research has not identified many individual differences that predict fairness perceptions, it appears that individuals who are cynical (Kanter & Mirvis, 1989), place a high value on fairness (Judge & Bretz, 1992), or have prosocial political views (Murphy et al., 1990) may be more

critical of the fairness of an organization's selection process. Accordingly, these were instituted as control variables in predicting fairness perceptions.

The selection of the influences on job search decisions was based on past research (Cable & Judge, 1994; Judge & Bretz, 1992). Thus, individual differences that influence a job seeker's willingness to pursue an organization (such as work experience, employment alternatives, grade point average, etc.) were added as controls.

Methodological Overview

Two studies were designed to provide a comprehensive examination of the relationships between selection practices, validity and fairness perceptions, and job search decisions. Study 1 investigates perceptions of five specific selection practices in an experimental context, permitting strong causal inferences by eliminating the possibility that a company's reputation could influence job seekers' perceptions of its selection systems. Study 2 models the relationships between recruiting organizations' perceived selection practices and applicants' behavioral job search decisions about actual organizations, testing the generalizability of the policy capturing results.

Method and Results: Study 1

Setting, Subjects, and Procedure

Surveys were administered to job seeking students enrolled in professional degree programs in either an industrial relations or a hotel administration school at a large Northeastern university. Participation was voluntary, and confidentiality was assured. Participants were offered an honorarium in return for completing the surveys. One hundred and two students were eligible to participate in the study. Fifty-eight job seekers completed usable surveys, representing a response rate of 57%. To compare the degree to which respondents were representative of nonrespondents, all subjects (including those who did not participate in the study) were asked to complete a short, anonymous survey. Using information obtained from this survey, respondents and nonrespondents did not differ significantly with respect to education, age, experience, marital status, gender, perceptions of alternative employment opportunities, grade-point average, or how they felt they would perform on each selection procedure investigated in the study. Thus, respondents appeared reasonably representative of the target sample, at least among the characteristics being compared.

Respondents' ages ranged from 20 to 42 years, with an average of 26.8 years. Sixty-two percent of respondents were women, and 31% of respondents were married. Eighty-three percent of respondents were graduate students. Grade-point average ranged from 2.89 to 4.00, with an average of 3.60. Fifty-five percent of job seekers had little or no prior class work in the

area of staffing, while 45% of respondents were either currently enrolled in a staffing class or had completed a class in staffing. Thirty-four percent of students perceived few or no employment alternatives while 66% perceived some or many employment alternatives. Fifty-two percent of students were currently interviewing for positions with the rest interviewing within the next year. Number of years of work experience ranged from 0 to 20 years, with an average level of experience equal to 4.8 years.

Research Design

Participants studied a series of hypothetical jobs, then indicated the job relatedness of the job's selection process, the overall fairness of the job's selection process, and their desire to accept jobs with those characteristics. When job relatedness perceptions are regressed on the job's dimensions, the magnitude and direction of the standardized beta weights represent the policy decisions used to evaluate the stimuli. This design is known as policy capturing and has been used to study a variety of decision making processes, including job search decisions (Cable & Judge, 1994; Judge & Bretz, 1992; Rynes et al., 1983; Zedeck, 1977). Policy capturing is an alternative to direct estimation techniques, which give little indication of how rankings are used in actual decision making, demand greater self-insight than is likely to be possessed by decision makers, and are frequently criticized for eliciting responses subject to social desirability (Jurgensen, 1978; Schwab et al., 1987). Also, the level of experimental control in policy capturing designs facilitates causal inferences, enabling researchers to assess the effects of the within-subjects factors.

Seven within-subjects factors (job characteristics) were manipulated. Five commonly used methods of employee selection were included in the scenarios: employment interviews, cognitive ability tests, biodata tests, personality tests, and drug tests. These particular selection measures were chosen because they are some of the most commonly used selection practices and are often used in managerial selection (Reilly & Chao, 1982; Rynes, Heneman, & Schwab, 1980). Before responding to the survey, each selection procedure was explained to job seekers in detail. These descriptions were derived from the research literature and actual assessment tools. For example, actual questions from the Wonderlic Personnel Test were included to describe cognitive ability tests. Concerning biodata tests, actual questions from biographical information blanks were included, and questions were included from the Personality Research Form (Jackson, 1967) to describe personality tests. Due to space limitations the actual descriptions of each selection procedure are not included in this paper but are available upon request.

The levels of the pay and promotion figures were derived from recent data from the schools' career placement offices. Because average salary offers differed significantly between graduates and undergraduates, separate salary figures were provided in the respective surveys. For graduate students in the industrial relations and hotel schools, an offer of \$42,000 represented the low offer (roughly the 25th percentile of offers accepted during the prior year); \$48,000 represented the high offer (roughly the 75th percentile of offers accepted during the prior year). For the undergraduates, these figures were \$30,000 and \$35,000, respectively. Low promotion opportunity was manipulated by having only 1 promotion in 5 years on the job. High promotion opportunity was indicated by 2 promotions in 5 years. These levels were determined through discussions with the schools' placement directors and from previous research (Judge & Bretz, 1992).

The seven within-subjects independent variables were completely crossed, permitting assessment of the independent effects of each factor on job relatedness perceptions and job search decisions. This procedure resulted in 128 scenarios (2^7) which were presented to job seekers in random order to prevent order effects. Additionally, six scenarios were replicated at random to examine consistency or reliability in responding across scenarios. Each participant was asked to assume that they were offered a job possessing the characteristics included in the description.

Measures

Job relatedness. The job relatedness of selection procedures was measured by asking "How likely do you think it is that this selection process will permit the organization to select the individuals who will be best able to perform the job?" Responses were anchored by a scale ranging from 1=extremely unlikely to 7=extremely likely. Reliability of this variable was calculated by computing reliability coefficients for each of the six replicated scenarios, and then averaging the six reliability coefficients. The resulting reliability estimate was .82.

Perceived fairness of selection process. Perceived procedural fairness of the selection process was measured by asking "How fair are the procedures in this screening process?" Responses were anchored on a 7-point scale (1=extremely unfair to 7=extremely fair). Reliability of this measure was calculated in the same manner as the job relatedness measure. The estimated reliability was .81.

Offer acceptance. Probability of offer acceptance was measured by asking the individual to respond to the following question, "Given the information presented above, how likely is it that you would accept an offer from this organization?" Responses were anchored by

a 7-point scale (1=highly unlikely to 7=highly likely). The reliability estimate of this measure, calculated in the same way as the above measures, was .91.

Negative affectivity. Negative affectivity was measured using the 10-item Negative Affectivity Schedule (Watson, Clark, & Tellegen, 1988). The coefficient alpha (α) reliability estimate of this scale was .70.

Number of rejections from selection procedures. Number of rejections from the five selection procedures used in the study was assessed by asking the respondent to indicate the number of times they had been rejected on the basis of each of the five selection procedures. These figures were then summed to form a composite measure.

Prosocial political views. Consistent with the survey developed by Vasudevan and Venkatapathy (1985), prosocial political views were assessed by five questions designed to measure liberalism versus conservatism (e.g., "I generally vote for the Democratic party in political elections, "I consider myself politically conservative [reverse scored]"). Responses were anchored by a 1-5 scale (1=strongly disagree to 5=strongly agree). The coefficient alpha of this scale was .73.

Degree to which fairness is an important work value. The degree to which individuals endorsed the work value of fairness was assessed by the Comparative Emphasis Scale (CES; Ravlin & Meglino, 1987). The CES presents 12 statements describing four work values (fairness, achievement, concern for others, and honesty). These 48 statements are divided into pairs such that a statement representing each of the four values is paired with each other value four times. For each pair, the individual checks the value that the respondent feels should be emphasized most in his or her behavior. Similar to Judge and Bretz (1992), the degree to which fairness was an important work value to supervisors was defined as the number of times fairness was preferred over the other values.

Demographic variables. Respondents' age, gender, education, work experience, grade-point average, whether they were a student of the hotel or industrial relations school, present education, perceived labor market alternatives (1=no alternatives, 5=many alternatives), and estimated time to beginning their job search (1=currently interviewing, 5=will not interview for more than a year) were assessed with individual questions on the survey.

Within-Subjects Analyses and Results

To describe how individuals' perceptions of specific selection tests and selection systems differed, a within-subjects regression analysis was conducted for each participant (Keppel, 1982). For each participant, three equations were calculated corresponding to the three dependent (endogenous) variables in Figure 1. One equation regressed judgments of job

relatedness on the five selection procedures. Another simple regression regressed perceived fairness of the selection process on judgments of job relatedness. Finally, probability of offer acceptance was regressed on pay, promotion opportunities, and perceived fairness of the selection process. The results of each of these regressions are summarized in turn (a table that contains the three sets of 58 individual within-subjects regression equations can be obtained from the authors).

Judgments of job relatedness. There was wide variation in the extent to which the linear combination of the selection procedures predicted judgments of perceived job relatedness for each participant (R^2 ranged from .37 to .95). Average R^2 for the 58 participants was .76. Use of the interview significantly predicted job relatedness perceptions for 91% of the subjects. Coefficients ranged from -.097 (*ns*) to +.957 ($p < .01$); the middle 50% of coefficients ranged from +.293 ($p < .01$) to +.650 ($p < .01$). Thus, for the vast majority of individuals, use of the employment interview significantly predicted job relatedness of the selection system.

For 88% of the subjects, use of a cognitive ability test significantly predicted the job relatedness of the selection system. Coefficients ranged from +.023 (*ns*) to +.908 ($p < .01$). The average coefficient was +.440 ($SD=.208$), and the middle 50% of the coefficients ranged from +.295 ($p < .01$) to +.575 ($p < .01$). Thus, for most individuals, use of a cognitive ability test strongly and significantly contributed to the job relatedness of the selection process.

There was considerably less agreement among participants concerning use of drug tests. Drug testing significantly contributed to the job relatedness of the selection system for only 7% of the subjects; for 3% of the subjects drug tests were significantly negatively related to judgments of job relatedness. Twenty-two of the 58 coefficients were negative. Coefficients for the 58 participants ranged from -.231 ($p < .01$) to +.676 ($p < .01$). The middle 50% coefficients ranged from -.048 (*ns*) to +.110 ($p < .05$). Thus, use of drug tests is not consistently related to judgments of job relatedness, as evidenced by the mean coefficient estimate ($M=+.038$).

With respect to biodata, organizational use of biographical data in the selection system was significantly related to job relatedness judgments for 53% of respondents. All significant coefficients were positive. The beta coefficients ranged in sign and magnitude from -.114 (*ns*) to +.417 ($p < .01$). The range of the middle half of the coefficients was from +.072 (*ns*) to +.316 ($p < .01$). This suggests some inconsistency in evaluations of biographical tests' job relatedness.

Use of personality tests significantly predicted job relatedness perceptions of the selection system for 38% of respondents. Of the 22 significant coefficients, 21 were positive and 1 was negative. Beta coefficients ranged from -.242 ($p < .01$) to +.417 ($p < .01$). The

middle 50% of coefficients ranged from +.026 (*ns*) to +.224 ($p < .05$). This suggests that use of personality tests is relatively weakly related to judgments of job relatedness, as evidenced by the average beta coefficient across respondents ($M = +.122$).

Perceived fairness of selection process. For most subjects, there was a strong relationship between the perceived job relatedness of a total selection system and the degree to which individuals thought the system was procedurally fair. Beta coefficients from the simple regression describing the relationship between job relatedness and perceived fairness ranged from +.07 (*ns*) to +.99 ($p < .01$). Only one coefficient was not significant. The middle 50% of the coefficients ranged from +.653 ($p < .01$) to +.932 ($p < .01$). Thus, for most individuals, the estimated job relatedness of the selection system strongly and significantly predicted its perceived fairness.

Probability of offer acceptance. There was some variation among respondents in the degree to which pay, promotion opportunities, and perceived selection system fairness predicted offer acceptance for each participant (R^2 ranged from .09 to .95). Average R^2 for the 58 participants was .66. Perceived fairness exerted a strong and significant effect on estimated probability of offer acceptance for most individuals. All beta coefficients were positive, and 57 of 58 coefficients were significant at the .01 level. Coefficients ranged from +.01 (*ns*) to +.97 ($p < .01$). The middle half of the coefficient estimates ranged from +.404 ($p < .01$) to +.836 ($p < .01$), indicating that for most individuals the fairness of the selection system was an important factor in their decisions to accept a hypothetical job offer.

As expected, pay exerted a consistently positive effect on offer acceptance, as 57 of the 58 coefficient estimates were positive. Coefficient estimates ranged from -.01 (*ns*) to +.97 ($p < .01$); 66% of the coefficients were significant. The middle 50% of the coefficients ranged from +.030 (*ns*) to +.399 ($p < .01$), suggesting that pay is of significant but moderate importance in job search decisions. Finally, promotion opportunities exerted less consistent effects on probability of accepting a hypothetical job offer, as evidenced by the fact that while 47 of 58 the beta coefficients were positive, only 28 out of 58 were significant (all significant coefficients were positive). Coefficients ranged from -.13 (*ns*) to +.89 ($p < .01$), with the middle half of the distribution falling between +.161 ($p < .05$) and +.263 ($p < .01$). This suggests that although promotion opportunities are a significant factor in many decisions to accept a given offer, they do not exert consistently strong effects on job search decisions.

LISREL Analyses and Results

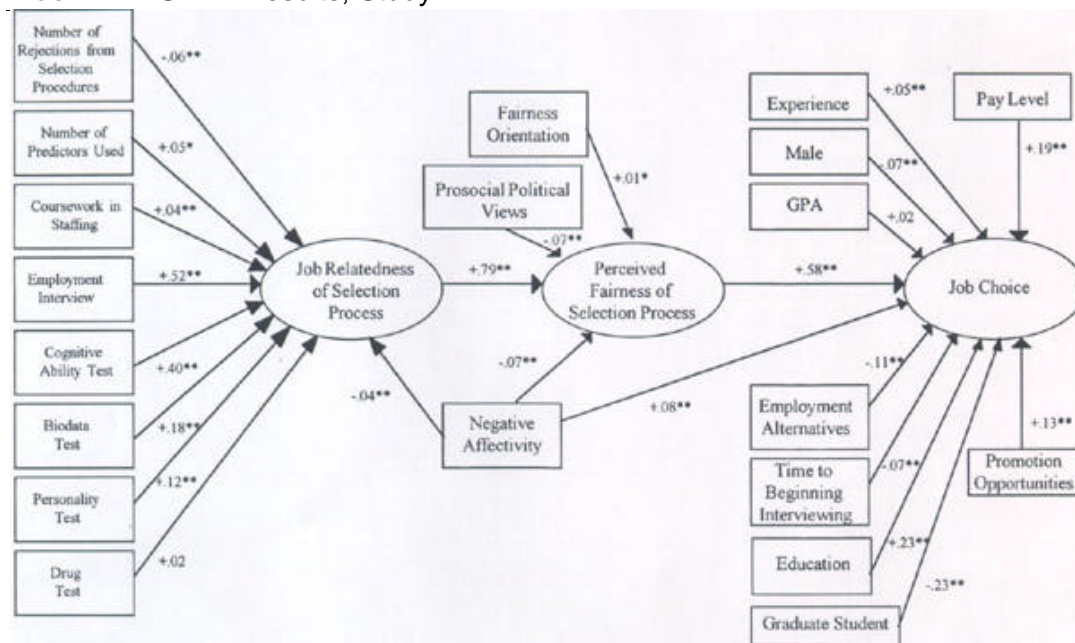
To test the hypothesized model (Figure 1), covariance structure modeling techniques (Jöreskog & Sörbom, 1989) were employed, allowing nonrecursive model estimations for the

purposes of drawing causal inferences. While covariance structure models do not establish proof of causality, properly identified models support inferences of causality (Hayduk, 1987; Jöreskog & Sörbom, 1989).

The data set used for the analysis that contained between-subjects factors was constructed by duplicating between-subject variables (e.g., age, experience) and then adding these to the within-subject manipulations and job choice, fairness, and job relatedness decisions (134 for each individual). Statistically, this is appropriate since each of these decisions is an independent event (Hays, 1981). This method is also conceptually appropriate because a between-subject factor can affect the respondent's reaction to each scenario. For example, GPA probably influences job choice decisions each time an individual is confronted with a decision. However, duplicating variables may also lead to a positive correlation between error terms, violating an assumption of ordinary least squares (OLS) regression. Therefore, generalized least squares (GLS) was used to estimate the effect of the independent variables on job search decisions. GLS produces unbiased estimates of regression parameters and error terms, and thus is well-suited to deal with autocorrelated errors (Hanushek & Jackson, 1977).

Figure 2 provides the parameter estimates of the hypothesized model. (Due to space limitations the correlation matrix is not presented but is available from the authors upon request.) The figure indicates that, in general, the hypotheses were supported. However, only two of the five specific hypotheses concerning the job relatedness of certain selection tests were supported. Specifically, job seekers viewed employment interviews and cognitive ability tests as strongly related to job performance. Biodata and personality tests also were viewed as job related. However, these results support the trend of the hypotheses because personality tests and biodata tests were viewed as much less job related than interviews and cognitive ability tests. Drug tests had no influence on individuals' job relatedness perceptions. Results also suggested that individuals who judged an organization's selection system as job related were more likely to perceive the system as fair, supporting Hypothesis 2. Hypothesis 3 also was supported strongly: individuals who perceived an organization's selection process as fair were more likely to accept a hypothetical job offer than individuals who viewed the selection system as unfair.

FIGURE 2: LISREL Results, Study 1



Several statistics provide information about the fit of covariance structure models, and it is important to consider the fit indices cumulatively when evaluating the adequacy of a model (James & James, 1989). The fit statistics of the model estimation provided by LISREL were as follows: $\chi^2=1,975.90$ with 275 degrees of freedom; goodness-of-fit index=.979; adjusted goodness-of-fit index=.977; root-mean-square residual=.025. Marsh, Balla, and McDonald (1988) and Mulaik, James, Alstine, Bennett, Lind, and Stilwell (1989) have suggested improvements upon indices reported by the LISREL program. Specifically, several other commonly recommended fit statistics were as follows: Bentler and Bonnett's (1980) normed fit index=.920; the Tucker-Lewis (1973) index=.923; and the Bentler's (1990) Comparative Fit Index=.930. Cumulatively, the fit statistics indicate that the model provides a good fit to the data.

Although the direct effects represented in Figure 2 are obviously important in causal models, indirect effects, or the effect of one variable on another as mediated by another variable, can be equally important (Hayduk, 1987). The indirect effects of the selection procedures on offer acceptance were as follows: interview (+.240; $p < .01$); biodata (+.081; $p < .01$); cognitive ability test (+.183; $p < .01$); drug test (+.007; *ns*); and personality test (+.055; $p < .01$). The indirect effect of perceived job relatedness on offer acceptance was +.460 ($p < .01$).

Because one model fits the data well does not eliminate the possibility that other models might fit the data at least as well. Hayduk (1987) encouraged researchers to test alternative

models. In particular, it is possible that individuals who believe that selection procedures are fair, may also perceive them as valid in turn. Thus, in addition to job relatedness perceptions affecting perceptions of fairness of the selection process, these fairness perceptions could also influence job relatedness perceptions. To test this possibility, the hypothesized model reviewed earlier was estimated with an added link from perceptions of fairness to perceptions of job relatedness. Adding this link was not significant ($\beta=+.008$, *ns*), and did not change the size or significance of the link from perceived job relatedness to fairness perceptions. Thus, the hypothesized causal order represented in Figure 1 and estimated in Figure 2 seems appropriate.

Method and Results: Study 2

Setting, Subjects, and Procedure

Surveys were administered to a different sample of job-seeking students enrolled in a large industrial relations school at a large Northeastern university. Participation was voluntary and confidential. Students were offered an honorarium in return for a completed, usable survey. One hundred fifty-three students were eligible to participate in the study. Eighty-three completed surveys were returned, representing a response rate of 58%. Age of participants ranged from 20 to 39; average age was 22 years. Forty-three percent were graduate students while the remainder were undergraduates. Grade-point average ranged from 2.50 to 4.00, with an average of 3.46. Fifty-three percent of the students were women, and 80% percent of the respondents were white. Seventy-one percent of respondents perceived few or no employment alternatives while 29% percent perceived some or many employment alternatives. Eighty percent of students were currently interviewing for positions, twelve percent expected to be interviewing within the next year, and the remainder were unsure. Number of years of work experience ranged from 0 to 22 years, with an average of 1.3 years.

Research Design and Measures

Rynes (1991) has pointed out that most studies on job search and choice have concentrated on contrived situations, as was the case in Study 1. To examine the relationships between selection system job relatedness, fairness, and job search decisions, and to assess the degree to which the policy capturing results generalized beyond an experimental setting, the present study elicited information about organizations which respondents were pursuing for jobs. Job seekers were asked about the job relatedness of organizations' selection systems and the extent to which they believed organizations' selection systems were fair. No specific selection tests were listed because there were from 10 to 14 different organizations with which students were interviewing. Individuals were asked to assess their perceptions about overall job

relatedness and fairness of selection systems for each of the organizations listed. In this way, we were able to obtain applicants' perceptions of actual companies based on individuals' knowledge of these organizations. Consistent with Rynes et al. (1983), information obtained about actual, relevant organizations should have greater external validity than experimental data about fictitious organizations.

Job application. Rynes et al. (1983) also suggested that intentions are very different from actual choices, because stating ones' perceptions or intentions is a costless exercise. Study 2 incorporated the notion of opportunity costs by examining behavioral choices made about actual recruiting organizations. Respondents were involved in their career office's placement program, which scheduled interviews between job seekers and organizations. Because job offers in this department were generated primarily through the placement office's program, obtaining interviews, and thus the placement office's program, is taken very seriously. In this program, job seekers are given a number of points (500) which are used to "bid" on organizations, and points are non-replaceable. Job seekers must spend points to obtain interviews from organizations. Failure to outbid other job seekers for a given organization excludes that company as an interviewing possibility. Thus, consistent with Rynes (1991), each bidding decision represents an opportunity cost as it forfeits further job opportunities with omitted companies through the placement program. This bidding information was obtained from placement office records, where an archival record of all past bidding decisions was maintained.

Job relatedness. Perceived job relatedness of the selection process was measured by asking respondents to consider the following question about the organizations with which they might apply: "Considering the selection procedures that this organization uses, how valid is this organization's overall selection process?" Responses were anchored by a 1=very invalid to 5=very valid scale.

Perceived fairness of selection process. Perceived procedural fairness of the selection process was measured by asking job seekers about the selection procedures used by organizations. Specifically, job seekers responded to the question: "Considering the selection procedures that this organization uses, how fair is this organization's overall selection process?" Responses were anchored on a 5-point scale (1=very unfair to 5=very fair).

Cynicism. Cynicism was measured using the 7-item scale developed by Kanter and Mirvis (1989). Subjects were asked to respond to statements such as, "people pretend to care more about one another than they really do," or "most people are just out for themselves." Responses were anchored on a 4 point scale (1=strongly disagree to 4=strongly agree). The reliability estimate of this measure was .85.

Negative affectivity. Negative affectivity was measured with the same scale as Study 1 (PANAS; Watson et al., 1988). The reliability estimate was .82.

Degree to which fairness is an important work value. As in Study 1, fairness was assessed with the Comparative Emphasis Scale (Ravlin & Meglino, 1987).

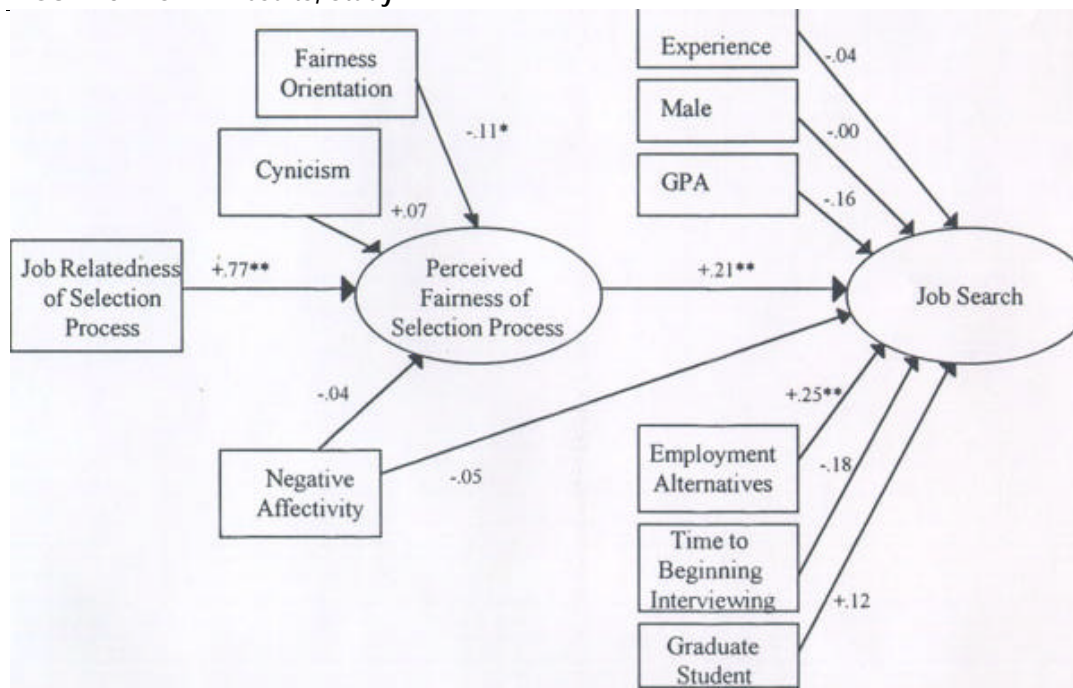
Demographic variables. Subjects' age, gender, full-time work experience, grade-point average, and estimated time to beginning their job search (1=currently interviewing to 5=more than one year) were assessed with individual questions on the survey.

Analysis and Results

To assess the hypothesized relationships between perceived job relatedness, perceived fairness, and actual job search behaviors, covariance structure modeling techniques again were employed (Jöreskog & Sörbom, 1989). The data set with which this analysis was constructed used a procedure similar to Study 1, duplicating between-subject variables (e.g., age, experience) across organizational information (e.g., perceived fairness, application decisions). Because of potential error autocorrelation, generalized least squares again was used to estimate the relationships between the variables (Hanushek & Jackson, 1977).

The fit statistics of the model estimation provided by LISREL were as follows: $\chi^2=9.51$ with 9 degrees of freedom; goodness-of-fit index=.988; adjusted goodness-of-fit index=.898; root-mean-square residual=.019; normed fit index=.962; Tucker-Lewis index=.994; and Comparative Fit Index=.998. These statistics suggest that the hypothesized model provided a good fit to the data. Consistent with the results of Study 1, alternative models did not provide a better fit to the data than the hypothesized model. Figure 3 provides the parameter estimates of the hypothesized model. These results offer further support for Hypotheses 2 and 3, reinforcing and extending the generalizability of the policy-capturing data. Results again suggested that individuals who judged an organization's selection system as more job related were more likely to perceive that system as fair, supporting Hypothesis 2. Results also confirmed that individuals who perceived an organization's selection process as more procedurally fair were more likely to try to obtain an interview with that organization than individuals who viewed the process as unfair. Consistent with the results from Study 1, perceived validity had a significant indirect effect (+.161, $p < .01$) on job pursuit decisions as mediated through fairness perceptions, although the effect was weaker than that found in Study 1.

FIGURE 3: LISREL Results, Study 2



Discussion

This study was conducted to provide an empirical test of Gilliland's (1993) hypothesized relationships among selection systems, job relatedness and fairness perceptions, and job search decisions. Results from two different studies and methodologies supported the hypotheses. First, applicants' perceptions of job relatedness differed among five different selection methods. Specifically, the employment interview and cognitive ability tests were viewed as considerably more job related than personality and biodata tests, although the validity of these latter tests did receive some support. Contrary to our hypothesis, drug testing was not seen as associated with judgments of job relatedness. Overall, our results are consistent with past research (Murphy et al., 1990; Rynes & Connerley, 1993; Schmit & Ryan, 1992) suggesting that job seekers exhibit substantial variation in their perceptions of different selection tests.

Second, our results suggest applicants' perceptions of job relatedness influence their perceptions of fairness of the overall selection process. Both studies demonstrated a strong and significant relationship between job relatedness and perceptions of fairness. In fact, both constructs were highly correlated (Study 1, $r=.79$; Study 2, $r=.77$). These results support models suggested by Gilliland (1993) and others (Arvey & Sackett, 1993; Leventhal, 1980; Schuler, 1993) and are consistent with more recent findings that perceptions of job relatedness

strongly influence applicants' perceptions of fairness (Kluger & Rothstein, 1991; Schmitt et al., 1993; Smither et al., 1993).

A third result of this study suggests that perceptions of selection system fairness affect job search decisions. This too corresponds with past research that has explicitly demonstrated the importance of fairness perceptions on work behaviors (Crant & Bateman, 1990; Konovsky & Cropanzano, 1991). Furthermore, Judge and Bretz (1992) demonstrated that organizational fairness values were predictive of job search decisions. Thus, our results provide evidence from two additional studies to support this conclusion.

Although the results of the two studies were relatively consistent, several differences existed which should be highlighted, specifically as they relate to the different methodologies employed in each study. In particular, Study 1 used a policy capturing technique while Study 2 assessed applicants' perceptions of job relatedness and fairness of actual companies' selection processes. However, the consistency between the results adds strength to the generalizability of these findings. Unlike Study 1, Study 2 did not include pay or promotion variables. As discussed earlier, past research has suggested the importance of these factors in job search decisions (Judge & Bretz, 1992; Jurgensen, 1978). While it is impossible to tell from this study how either of these elements influenced applicants' decisions, participants were nonetheless basing their decisions on the actual information they had about the organizations, salary and promotional opportunities included. Additionally, Study 1 involved the direct assessment of the job relatedness and fairness of specific selection techniques, while Study 2 involved judgments of job relatedness and fairness of overall selection systems. As mentioned earlier, policy capturing studies require the manipulation of variables and as such, five different selection techniques were used in the first study. However, since Study 2 required individuals to base their judgments of the selection processes on the actual organizations from which they were seeking employment, specific hiring tests were not listed. The results then, from this latter study, should provide greater external validity than the policy capturing data (Rynes et al. 1983). Finally, the stronger effect of fairness perceptions on job search decisions in Study 1 may be due to several factors; many of these may be due to the greater realism (and thus more realistic estimates) in Study 2.

Limitations, Strengths, and Implications

This study has a number of limitations that must be acknowledged. First, the goal of the present study was to provide a rigorous empirical test of the job search and choice component of Gilliland's (1993) model. Although one hypothesized system of relationships was supported, much of the model remains untested (his model includes 35 individual variables and 26

hypotheses). For example, this study does not establish the relative importance of other factors on perceived selection system fairness, including formal characteristics of the selection tests (e.g., opportunity to perform), explanations of the testing procedures (e.g., feedback), and interpersonal treatment of job seekers (e.g., propriety of questions). This study also does not address the effects of distributive justice or justice interaction effects, which recent research suggests may be an important determinant of job seekers' reactions to selection systems (Gilliland, in press). Additionally, we do not consider the processes by which these measures are administered (Gilliland, 1993), such as human resource policies and administrative personnel.

Much of the data examined in this study were reported by respondents, so common method variance self-report bias may have influenced the observed results. To address this potential bias, we examined actual job application decisions with real opportunity costs, made in a setting unrelated to the survey. Furthermore, the experimental results may be less susceptible to priming and other reporting biases (Schwab et al., 1987). Finally, in both studies, we used negative affectivity in the equations predicting the core constructs, which reduces method effects (Burke et al., 1993). Despite these attempts to reduce method variance, we cannot completely rule it out, and thus it must be acknowledged as a potential limitation with the study.

Another potential limitation of this study is that a large percentage of respondents were graduating students in an Industrial and Labor Relations school. Although this sample characteristic may be beneficial, because respondents may be more familiar with the selection tests than other samples, greater awareness of the tests' true validities may have affected their responses. Although we attempted to mitigate this concern by assessing and controlling for the number of related classes respondents took, it is still possible that their reactions to the selection tests are different from other samples. Another factor that mitigates this concern is that we also collected data from hotel administration students (22% of the sample) in Study 1. In fact, post-hoc analyses suggested that the two groups of job seekers did not differ with respect to the central variables of interest.

The present study also has a number of strengths that tend to offset these weaknesses. Because multiple research methods increase the confidence placed in the results, findings from the experimental design were supported by behavioral choices made about relevant companies. While each of these methods has the inherent weaknesses discussed above, each also offers unique information about the relationships between selection systems and job search decisions. The experimental design permits strong causal inferences by eliminating the possibility that a

company's image or reputation could influence job seekers' perceptions of its selection systems, while the organization pursuit data support the generalizability of the policy capturing results and incorporate the notion of opportunity costs in job search decisions. Furthermore, the within-subjects analyses of this research allowed us to investigate various causes of variances in applicant reactions.

This study also was designed carefully to be as realistic as possible. Consistent with Rynes et al. (1983), relevant average starting pay levels and pay variability between jobs was calculated based on placement office records of recent salary offers. Also, the descriptions of the selection tests used in the policy capturing study were based on actual widely used selection tests which applicants might be exposed to in their job search. The sample also was credible: all respondents would be seeking jobs within one year, and many (52% in Study 1; 100% in Study 2) were behaving in role because they were in the process of making job search decisions at the time of the study. Finally, Study 2 examined actual application decisions made about recruiting companies. Each of these procedures should enhance the external validity of the results.

One interesting finding of the present study that was not included in Gilliland's (1993) model was substantial variation between job seekers in their perceptions of and reactions to the various selection tests. Although the present study was not able to test individual differences that reliably predicted reactions to selection procedures, these results confirm past research that it may be possible to do so (Schmit & Ryan, 1992). If organizations could identify certain types of applicants who react consistently to certain tests, they might increase the value of their selection systems by promoting applicant self-selection. For example, Murphy et al. (1990) found that drug users (presumably an unwanted group to organizations) consistently disapprove of drug testing. The present research confirms that applicants who dislike certain selection tests may be less attracted to organizations that use those tests and may be less likely to pursue and accept a job with those organizations.

Clearly, this research demonstrates that applicants' perceptions of the job relatedness of selection systems not only influence their perceptions of fairness of these processes but also affect their job search decisions. This has important consequences for organizations such as the "spillover" effect described by Rynes and Barber (1990). Smither et al. (1993) suggested that in relation to ability tests, developing "job related" tests could be misleading to applicants, as well as create potential reliability problems. While this may be true for specific items on specific tests, in general, the evidence presented in this research as well as from others strongly indicates the need to consider applicants' perceptions of selection procedures.

References

- Arvey, R. D., & Campion, J. E. (1982). The employment interview: A summary and review of recent research. Personnel Psychology, 35, 281-322.
- Arvey, R. D. & Sackett, P. R. (1993). Fairness in selection: Current developments and perspectives. In N. Schmitt & W. Borland (Eds.), Personnel selection in organizations (pp. 171-202). San Francisco: Jossey-Bass.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. Personnel Psychology, 44, 1-26.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. Psychological Bulletin, 107, 238-246.
- Bentler, P. M., & Bonnett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88, 588-606.
- Burke, M. J., Brief, A. P., & George, J. M. (1993). The role of negative affectivity in understanding relations between self-reports of stressors and strains: A comment on the applied psychology literature. Journal of Applied Psychology, 78, 402-412.
- Cable, D., & Judge, T. A. (1994). Pay preferences and job search decisions: A person-organization fit perspective. Personnel Psychology, 47, 317-348.
- Crant, J. M., & Bateman, T. S. (1990). An experimental test of the impact of drug-testing programs on potential job applicants' attitudes and intentions. Journal of Applied Psychology, 75, 127-131.
- Dreher, G. F., & Sackett, P. R. (1983). Perspectives on employee staffing and selection. Homewood, IL: Irwin.
- Folger, R., & Greenberg, J. (1985). Procedural justice: An interpretive analysis of personnel systems. In K. M. Rowland & G. R. Ferris (Eds.), Research in personnel and human resources management (Vol. 3). Greenwich, CT: JAI Press.
- Gilliland, S. W. (1993). The perceived fairness of selection systems: An organizational perspective. Academy of Management Review, 18, 694-734.
- Gilliland, S. W. (in press). Effects of procedural and distributive justice on reactions to a selection system. Journal of Applied Psychology.
- Gilovich, T. (1990). Differential construal and the false consensus effect. Journal of Personality and Social Psychology, 59, 623-634.
- Graham, L. D. (1991). Predicting academic success of students in a masters of business administration program. Educational and Psychological Measurement, 51, 721-727.
- Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. Journal of Management, 16, 399-432.

- Guion, R. M., & Gottier, R. F. (1965). Validity of personality measures in personnel selection. Personnel Psychology, 18, 135-164.
- Hanushek, E. A., & Jackson, J. E. (1977). Statistical methods for social scientists. San Diego, CA: Academic Press.
- Harris, M. M., & Fink, L. S. (1987). A field study of applicant reactions to employment opportunities: Does the recruiter make a difference? Personnel Psychology, 40, 765-784.
- Hayduk, L. A. (1987). Structural equation modeling with LISREL: Essentials and advances. Baltimore, MD: Johns Hopkins.
- Hays, W. L. (1981). Statistics (3rd ed.). New York, NY: Holt, Rinehart, & Winston.
- Herriot, P. (1989). Selection as a social process. In M. Smith & I. T. Robertson (Eds.), Advances in selection and assessment (pp. 171-187). Chichester, England: Wiley.
- Howell, W. C., & Dipboye, R. L. (1982). Essentials of industrial and organizational psychology. Homewood, IL: Dorsey Press.
- Hunter, J. E., & Hunter, R. F. (1984). Validity and utility of alternative predictors of job performance. Psychological Bulletin, 96, 72-98.
- Iles, P. A., & Robertson, I. T. (1989). The impact of personnel selection procedures on candidates. In P. Herriot (Ed.), Handbook of assessment in organizations (pp. 257-271). Chichester, England: Wiley.
- Jackson, D. (1967). Personality Research Form. Research Psychologists Press.
- James, L. A., & James, L. R. (1989). Causal modeling in organizational research. In C. Cooper & I. Robertson (Eds.), International review of industrial and organizational psychology (pp. 371-404). New York: Wiley.
- Jones, J. W., Ash, P., & Soto, C. (1990). Employment privacy rights and pre-employment honesty tests. Employee Relations Law Journal, 15, 561-575.
- Jöreskog, K. G., & Sörbom, D. (1989). LISREL 7: A guide to the program and applications. Chicago: SPSS, Inc.
- Judge, T. A., & Bretz, R. D, Jr. (1992). Effects of work values on job choice decisions. Journal of Applied Psychology, 77, 261-271.
- Jurgensen, C. E. (1978). Job preferences (what makes a job good or bad?). Journal of Applied Psychology, 50, 479-487.
- Kanter, D. L., & Mirvis, P. H. (1989). The cynical Americans: Living and working in an age of discontent and disillusion. San Francisco: Jossey-Bass.
- Keppel, G. (1982). Design and analysis: A researcher's handbook (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

- Kluger, A. N., & Rothstein, H. R. (1993). The influence of selection test type on applicant reactions to employment testing. Journal of Business and Psychology, 8, 3-25.
- Konovsky, M. A., & Cropanzano, R. (1991). Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. Journal of Applied Psychology, 76, 698-707.
- Leventhal, G. (1980). What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), Social exchange: Advances in theory and research. New York: Plenum.
- Mael, F. A. (1991). A conceptual rationale for the domain and attributes of biodata items. Personnel Psychology, 44, 763-792.
- Marsh, H. W., Balla, J. R., & McDonald, R. P. (1988). Goodness of fit indexes in confirmatory factor analysis: The effect of sample size. Psychological Bulletin, 103, 391-410.
- Mulaik, S. A., James, L. R., Alstine, J. A., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. Psychological Bulletin, 105, 430-445.
- Murphy, K. R., Thornton, G. C., III, & Reynolds, D. H. (1990). College students' attitudes toward employee drug testing programs. Personnel Psychology, 43, 615-631.
- Normand, J., Salyards, S. D., & Mahoney, J. J. (1990). An evaluation of preemployment drug testing. Journal of Applied Psychology, 75, 629-639.
- Powell, G. N. (1991). Applicant reactions to the initial employment interview: exploring theoretical and methodological issues. Personnel Psychology, 44, 67-83.
- Ravlin, E. C., & Meglino, B. M. (1987). Effects of values on perception and decision making: A study of alternative work value measures. Journal of Applied Psychology, 72, 666-673.
- Reilly, R. R., & Chao, G. T. (1982). Validity and fairness of some alternative employee selection procedures. Personnel Psychology, 35, 1-62.
- Reilly, R. R., Stoffey, R. W., & Millsap, R. (1991). Influences of perceived validity and fairness of tests on perceptions of the organization. In R. R. Reilly (Chair), Perceived validity of selection procedures: Implications for organizations. Symposium conducted at the 6th annual meeting of the Society for Industrial and Organizational Psychology, April 26-28, St. Louis.
- Rothstein, H. R., Schmidt, F. L., Erwin, F. W., Owens, W. A., & Sparks, C. P. (1990). Biographical data in employment selection: Can validities be made generalizable? Journal of Applied Psychology, 75, 175-184.
- Ryan, A. M. & Sackett, P. R. (1987). Pre-employment honesty testing: Fakability, reactions of test takers, and company image. Journal of Business and Psychology, 1, 248-256.
- Rynes, S. L. (1991). Recruitment, job choice, and post-hire consequences: A call for new research directions. In M. Dunnette & L. Hough (Eds.), Handbook of industrial and

- organizational psychology (2nd ed., Vol. 2, pp. 399-444). Palo Alto, CA: Consulting Psychologists Press.
- Rynes, S. L. (1993). Who's selecting whom? Effects of selection practices on applicant attitudes and behavior. In N. Schmitt & W.C. Borman (Eds.), Personnel selection in organizations (pp. 240-274). San Francisco: Jossey-Bass.
- Rynes, S. L., & Barber, A. E. (1990). Applicant attraction strategies: An organizational perspective. Academy of Management Review, 15, 286-310.
- Rynes, S. L., Bretz, R. D., & Gerhart, B. (1991). The importance of recruitment in job choice: A different way of looking. Personnel Psychology, 44, 487-521.
- Rynes, S. L., & Connerley, M. L. (1993). Applicant reactions to alternative selection procedures. Journal of Business and Psychology, 7, 261-277.
- Rynes, S. L., & Gerhart, B. (1990). Interviewer assessment of applicant "fit": An exploratory investigation. Personnel Psychology, 43, 13-22.
- Rynes, S. L., Heneman, H. G., & Schwab, D. P. (1980). Individual reactions to organizational recruiting: A review. Personnel Psychology, 33, 529-542.
- Rynes, S. L., Schwab, D. P., & Heneman, H. G. (1983). The role of pay and market pay variability in job application decisions. Organizational Behavior and Human Performance, 31, 353-364.
- Schmidt, F. L., Ones, D. S., & Hunter, J. E. (1992). Personnel selection. Annual Review of Psychology, 43, 627-670.
- Schmit, M. J., & Ryan, A. M. (1992). Test-taking dispositions: A missing link? Journal of Applied Psychology, 77, 629-637.
- Schmitt, N. & Gilliland, S. W. (1992). Beyond differential prediction: Fairness in selection. In D. M. Saunders (Ed.), New approaches to employee management: Fairness in employee selection (Vol. 1, pp. 21-46). Greenwich, CT: JAI Press.
- Schmitt N., Gilliland S. W., Landis R. S., & Devine, D. (1993). Computer-based testing applied to selection of secretarial applicants. Personnel Psychology, 46, 149-165.
- Schuler, H. (1993). Social validity of selection situations: A concept and some empirical results. In H. Schuler, J. L. Farr, & M. Smith (Eds.), Personnel selection and assessment: Individual and organizational perspectives (pp. 11-26). Hillsdale, NJ: Erlbaum.
- Schwab, D. P., Rynes, S. L. & Aldag, R. J. (1987). Theories and research on job search and choice. In K. Rowland & G. Ferris (Eds.), Research in personnel and human resources management (Vol. 5, pp. 126-166). Greenwich, CT: JAI Press.
- Smither, J. W., Reilly, R. R., Millsap, R. E., Pearlman, K., & Stoffey, R. W. (1993). Applicant reactions to selection procedures. Personnel Psychology, 46, 49-76.

- Thornton, G. C., III. (1993). The effect of selection practices on applicants' perceptions of organizational characteristics. In H. Schuler, J. L. Farr, & M. Smith (Eds.), Personnel selection and assessment: Individual and organizational perspectives (pp. 57-67). Hillsdale, NJ: Erlbaum.
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. Psychometrika, 38, 1-10.
- Vasudevan, S., & Venkatapathy, R. (1985). Social and political attitude scale. Psychological Research Journal, 9, 25-32.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. Journal of Personality and Social Psychology, 54, 1063-1070.
- Zedeck, S. (1977). An information processing model and approach to the study of motivation. Organizational Behavior and Human Performance, 18, 47-77.