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INVESTIGATING THE EFFECTS OF PREFERENTIAL SELECTION ON SELF-PERCEPTIONS FROM AN ORGANIZATIONAL JUSTICE PERSPECTIVE

By

Jennifer Zophy Carr

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ABSTRACT

INVESTIGATING THE EFFECTS OF PREFERENTIAL SELECTION ON SELF-PERCEPTIONS FROM AN ORGANIZATIONAL JUSTICE PERSPECTIVE

By

Jennifer Zophy Carr

The organizational justice literature holds that there is a positive relationship between the perceived fairness of the selection system and post-hire self-perceptions and that this is true for everyone. In contrast, the results of Heilman and her colleagues (e.g., Heilman, Battle, Keller, & Lee, 1998; Heilman, Lucas, & Kaplow, 1990; Heilman, Rivero, & Brett, 1991; Heilman, Simon, & Repper, 1987) suggest that the relationship may be moderated. Unfortunately, features of Heilman's design prevent an adequate test of this proposition. Thus, neither the organizational justice literature nor the research of Heilman and her colleagues clearly specifies the relationship between the fairness of a selection system and post-hire self-perceptions. Furthermore, the role of performance in this relationship has thus far been ignored by both of these literatures. Thus, the current paper proposes and tests a model that contributes to the organizational justice literature by better specifying the relationship between the perceived fairness of a selection procedure and post-hire self-perceptions and by integrating the construct of performance. The findings of this study support the organizational justice position that there is a positive relationship between the perceived fairness of the selection system and post-hire self-perceptions, and this is true regardless of sex, ISC, or job type.

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Introduction

The organizational justice literature describes how perceptions of fairness influence a wide variety of organizational outcomes. These outcomes include better work attitudes (Daley & Geyer, 1995; Folger & Konovsky, 1989), increased job performance (Gilliland, 1994; Konovsky & Cropanzano, 1991), and increased organizational commitment (Tyler, 1991). Fairness in a selection setting is not only thought to influence important outcomes for the organization, but also for the individual. Recently, applied psychologists have sought to understand how features of a selection system influence the self-perceptions of the applicants going through it – that is, what are applicants' self-perceptions *after* going through the selection procedure.

One of the first to investigate this was Gilliland (1993). He put forward a model that includes the proposition that there is a positive relationship between perceived fairness of a selection system and self-perceptions. More specifically, he proposed that applicants (whether they are hired or not) have more positive self-perceptions when they perceive the selection system to be fair than when they do not. While Gilliland's proposition has been generally well accepted in the organizational justice literature, researchers investigating the effects of Affirmative Action (a specific example of a selection system that may be perceived as unfair) have found what appear to be different results. The research of Madeline Heilman and her colleagues (e.g., Heilman, et al, 1987, 1990, 1991, 1998) suggests that only *females* who are hired under conditions that they perceive to be unfair suffer negative consequences to their self-perceptions.

Thus, although there seems to be agreement about the impact on self-perceptions of *not* being hired through an unfair selection system, there exist these disparate ideas

about the impact on self-perceptions of being hired through such a system. The organizational justice literature holds that the positive relationship between the perceived fairness of the selection system and post-hire self-perceptions is true for everyone, whereas Heilman's results suggest that the relationship may be moderated. Unfortunately, as will be discussed shortly, features of Heilman's design prevent an adequate test of this proposition. In short, neither the organizational justice literature nor the research of Heilman and her colleagues clearly specifies the relationship between the fairness of a selection system and post-hire self-perceptions. Furthermore, the role of *performance* in this relationship has thus far been ignored by both of these literatures.

It is important that we understand how the perceived fairness of a selection system impacts the self-perceptions of those who are hired because self-perceptions are so closely linked to performance. In fact, a meta-analysis by Judge and Bono (2001) revealed that various elements of one's core self-concept (self-esteem, generalized self-efficacy, and internal locus of control) display corrected correlations with job performance equal to or higher than that of conscientiousness, which is widely known as a good predictor of various job performance criteria for all occupational groups (Barrick & Mount, 1991). Furthermore, a review of 13 studies by Locke and Latham (1990) revealed that the mean relationship between self-efficacy (i.e., belief in one's ability to perform) and performance is .39, and Gist and Mitchell (1992) state that self-efficacy is an important motivational construct in that it influences individual choices, goals, emotional reactions, effort, coping, and persistence. In sum, positive self-perceptions are a valuable outcome because they have both short and long term consequences for motivation and job performance.

Thus, the main purpose of this paper is to propose a model that contributes to the organizational justice literature by better specifying the relationship between the perceived fairness of a selection procedure and post-hire self-perceptions and by integrating the construct of performance. In the first section of this paper, I will introduce the different explanations of this relationship offered by the *organizational justice literature* and the research of *Heilman and her colleagues*. In the second section, I will propose a model that better specifies this relationship by integrating the constructs noted by Heilman and her colleagues (e.g., initial self-confidence) as well as discuss the role of performance, a construct that has so far been ignored in this particular relationship. Finally, I will describe the experiment conducted to test this model and discuss implications for future research.

Relevant Research

The discrepancy between the organizational justice literature's position and the results of Heilman and her colleagues about the impact of the perceived fairness of a selection procedure on post-hire self-perceptions is as follows. The former proposes that the positive relationship between perceived fairness and post-hire self-perceptions is true for everyone, and the latter suggests that the relationship may be moderated by another variable (e.g., sex). In the following sections, I will: (1) provide a more detailed description of the organizational justice literature on this relationship; (2) provide a more detailed description of Heilman's findings; and (3) identify features of Heilman's design that need to modified in order to conduct an adequate test of her theory.

Organizational justice

In recent years, scientists and practitioners have become increasingly interested in organizational justice – perceptions of fairness in organizations. Organizational justice refers to everything from perceptions of macro-level policies implemented by an organization to perceptions of micro-level everyday behaviors exhibited by supervisors. Organizational justice is relevant to job incumbents at all levels as well as to applicants and to individuals leaving the organization. Research suggests that there is an abundance of positive consequences associated with individuals feeling that they have been treated fairly (for reviews see Cropanzano & Greenberg, 1997; Greenberg, 1990a, 1996) including greater acceptance of decisions (Ball, Treviño, & Sims, 1994; Greenberg, 1994; Grover, 1991), increased organizational commitment (Tyler, 1991), lower turnover intentions (Dailey & Kirk, 1992), decreased theft (Greenberg, 1990b; 1993), better work attitudes (Daley & Geyer, 1995; Folger & Konovsky, 1989), and increased job performance (Gilliland, 1994; Konovsky & Cropanzano, 1991).

Organizational justice research focuses on the perceived fairness of distributed outcomes (called *distributive justice*) (Adams, 1965; Homans, 1961; Stouffer, Suchman, DeVinney, Star, & Williams, 1949) and of the procedures by which outcomes are distributed (called *procedural justice*) (Folger & Greenberg, 1985; Greenberg & Folger, 1983; Leventhal, 1980; Thibaut & Walker, 1975). In this paper, the focus is on the perceptions of those who go through a hiring process and are all offered a job. Distributive justice is in effect held constant and, thus, I will focus solely on the procedural justice of a selection system.

Recent research has addressed the question of how characteristics of personnel selection procedures influence the fairness perceptions of those experiencing them (Arvey & Sackett, 1993; Gilliland, 1994; Schmitt & Gilliland, 1992). In Gilliland's (1993) model, he discussed three broad classes of applicant reactions that occur in response to the perceived fairness of selection systems. He discusses reactions that occur during the hiring process (such as test motivation) and those that occur after the selection decision (such as performance and perceptions of the organization), as well as the overall impact of selection systems on the self-perceptions of the applicants. This third issue – the impact on the self-perceptions of applicants - is the focus of the current study. *Self-perceptions* is a broad term that encompasses one's "self-esteem, self-efficacy toward a job and toward the job-search process, and self-perceived ability" (Gilliland, 1993, p.725). Consistent with Weiner (1985), Gilliland argues that an unfair selection system provides an external attribution for the selection outcome (i.e., being hired or not being hired) and will therefore not have a great impact on applicants' self-perceptions, while internal attributions are more likely with a fair selection system and the selection outcome will be more likely to affect applicants' self-perceptions.

Research has investigated the effects of the perceived fairness of the selection system on various outcomes including test performance (Chan, Schmitt, DeShon, Clause, & Delbridge, 1997, Chan, Schmitt, Sacco, & DeShon, 1998; Ryan, Ployhart, Greguras, & Schmit, 1998), job acceptance intentions (Ployhart & Ryan, 1998); and perceptions of the organization (Kluger & Rothstein, 1993; Kohn & Dipboye, 1998; Ployhart, Ryan, & Bennett, 1999; Saks, Leck, & Saunders, 1995). However, until recently, there has been little research in the organizational justice literature investigating how selection

procedures influence the post-hire self-perceptions of the applicant (recent research includes Bauer, Maertz, Dolen, & Campion, 1998; Koper, Van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993; Gilliland, 1994; Ployhart & Ryan, 1997; Schroth & Shah, 2000), and specifically, the effects on self-perceptions of being hired through what is perceived to be an unfair selection system. It is surprising that more attention has not been paid to this issue given the previously discussed link between self-perceptions and performance.

The few studies conducted by organizational justice researchers investigating the relationship between the perceived fairness of a selection system and post-hire self-perceptions have found the relationship between the two to be positive (Schroth & Shah, 2000). For example, Bauer et al (1998) found a positive relationship between the procedural justice of a selection test and the self-perceptions of those who passed the test, even after controlling for initial self-efficacy. Overall, the empirical studies in the organizational justice literature on this topic suggest that individuals hired through a procedure that they perceive to be fair will experience more favorable self-perceptions (i.e., increased self-efficacy and self-evaluations of performance) than those hired through a system that they perceive to be unfair (Bauer et al, 1998; Koper, et al, 1993; Gilliland, 1994; Ployhart & Ryan, 1997).

Note that the majority of these studies do not investigate Gilliland's (1993) claim that within-person self-perceptions are "unchanged" when the selection procedure is perceived to be unfair. Rather, they measure between-subject differences in post-hire self-evaluations as a function of the different methods of selection. This means that it is not known whether individuals' self-perceptions are *unchanged* or *decrease* as a result of

feeling that they were unfairly selected. Although this is certainly an interesting topic of future research, the current paper focuses on resolving the apparent discrepancy between the organizational justice literature and the findings of Heilman and her colleagues. I have described the findings of the organizational justice literature, and I will now provide a more detailed description of Heilman's research.

Heilman's results

Although organizational justice researchers have only recently begun to investigate the impact on post-hire self-perceptions of being selected through what is perceived to be an unfair process, this has been a topic of interest for Heilman for almost 20 years (e.g., Heilman, 1983). It is true that the majority of Heilman and her colleagues' investigations of this question have been specific to the responses to Affirmative Action policies, but the findings are certainly relevant to the organizational justice literature as a whole. Briefly, the purpose of their research is to understand the unintended consequences of Affirmative Action on the beneficiaries' self-perceptions. In order to investigate this, Heilman and her colleagues' experimental design involves varying the *method of selection* and measuring its effects on *self-evaluations* of performance.

Each participant is told in the presence of an opposite-sex confederate that he/she has been selected over the confederate for a task that is male in sex-type (e.g., a managerial or leadership task), and the *method of selection* is explained to him/her. The participant is either told that s/he has been selected on basis of his/her performance on a selection test (called *merit-based selection*) or s/he is told that special conditions necessitate that s/he is selected on the basis of his/her sex (called *preferential selection*). The preferential selection condition violates Leventhal's (1980) procedural justice criteria

of consistently applying policies across people and time, and thus is considered to be a *procedurally unfair advantage* to the participant. Additionally, manipulation checks by Heilman et al (1998) revealed that preferentially selected participants report perceiving this procedure to be significantly less fair than those selected on the basis of merit.

Once the participant is informed that s/he has been selected and completes the experimental task, he/she is asked to complete a measure to indicate his/her *self-evaluation of performance*. Self-evaluation of performance is a specific variable that can be classified under Gilliland's (1993) broader conceptualization of self-perceptions. In all of the studies conducted by Heilman and her colleagues, female participants experience lower self-evaluations of performance when they are chosen through a *procedurally unfair* selection method than when chosen through a *procedurally fair* selection method, while male participants' self-evaluations of performance do not vary by method of selection. Thus, these empirical results suggest that the relationship between the perceived fairness of a selection system and post-hire self-evaluations is moderated by the sex of the participant. More specifically, there is no difference in the self-evaluations of males hired on the basis of sex versus those on the basis of merit, whereas preferentially selected females report lower self-evaluations of performance than those that are selected on the basis of merit.

Heilman and her colleagues have suggested that the reason that males and females respond differently to being hired through what is perceived to be an unfair selection system is because they differ on their level of initial self-confidence (ISC) to perform the job. Heilman et al (1990) suggest that women, who are generally less likely to approach leadership roles with confidence in their ability, are more vulnerable to the ambiguity

about competence created by benefiting from a procedurally unfair selection system, and are therefore more likely to suffer the negative consequences to their post-hire self-perceptions. Thus, Heilman proposes that the relationship between the perceived fairness of a selection system and post-hire self-perceptions is actually moderated by ISC to perform the job.

It is important to explicitly note the discrepancy between the position of the organizational justice literature and the results of Heilman and her colleagues. While the organizational justice literature suggests that the relationship between the perceived fairness of a selection system and post-hire self-perceptions is positive, the results of Heilman and her colleagues suggest that this relationship is more complex. Specifically, they have found that when they vary the procedural fairness of the selection system, males and females respond differently such that females are vulnerable to lower self-evaluations of performance when they are selected through a selection system that is perceived to be unfair while males are not. These results suggest that the relationship between the perceived fairness of a selection system and post-hire self-perceptions is positive, but moderated by some other variable. Heilman suggests it is not sex, but ISC. However, there are some limitations of her experimental design, which will be discussed shortly, that prevent one from determining what the moderator is. Thus, although the results of Bauer et al (1998) suggest that procedural fairness has a positive effect on post-hire self-perceptions above and beyond ISC, the hypothesis that ISC moderates the relationship between the perceived fairness of a selection system and post-hire self-perceptions remains untested.

Limitations of Heilman's design

As stated above, Heilman and her colleagues have offered the proposition that the relationship between the perceived fairness of a selection system and post-hire self-perceptions is moderated by ISC to perform the job. This suggests that the organizational justice literature does not adequately explain the relationship between the perceived fairness of a selection procedure and post-hire self-perceptions. The problem is that there are at least three features of Heilman and her colleagues' experimental design that prevent this proposition from being adequately tested.

The first limiting feature of Heilman and her colleagues' design is that it confounds the *sex* of the participant with the presence or absence of *job stereotype fit* (the extent to which the participant's sex matches the sex-type of the job). More specifically, the participants are always selected for a leadership position, a job that is stereotypically male in sex-type. This means that all the males are selected for a position for which they have a *presence* of fit, while females are selected for a position for which they have an *absence* of fit.

The second limiting feature is that ISC is not measured in any of Heilman's research. Heilman et al (1991) explain that pilot work indicated that it is "not possible to measure subjects' perceptions of their competence before [the task] without creating compelling demand cues" (pg. 101). Thus, all of Heilman's research employs only a post-hoc measure of perceived ability. Heilman et al (1990) attempted to manipulate ISC by providing positive, negative, or no feedback on pretask performance. However, using this manipulation only indicates how individuals would react *if they had* a given level of self-confidence. The real question of interest is whether males and females *actually have*

different levels of confidence depending on the extent of job stereotype fit, and if so, if these differences interact with perceptions of fairness to influence post-hire self-perceptions.

The third limiting feature is the absence of psychological fidelity between Heilman and her colleagues' experimental design and an actual selection situation. In a typical selection situation, applicants are privately told whether or not they have been selected for a job. If selected, they are then introduced to their subordinates, who have been independently selected for their positions. In Heilman and her colleagues' experimental design, each participant is told in the presence of an opposite-sex confederate that he/she has been selected *instead of* the confederate for the task. Then, the confederate becomes the subordinate of the participant. Thus, this design is not representative of an actual selection situation. This lesser degree of psychological fidelity is problematic because it means that the findings have limited generalizablity.

In sum, there are three limiting features of Heilman and her colleagues' design. It confounds the *sex* of the participant with the presence or absence of *job stereotype fit*, it does not include the measurement of ISC, and it lacks psychological fidelity to an actual selection situation. Taken together, these features make it unclear whether the relationship between the perceived fairness of the selection system and the post-hire self evaluations of performance is moderated by the *sex* of the participant, by the extent to which the participant *fits the sex-type* of the job, or by some other variable, such as ISC. Thus, as I alluded to before, we are left with no clear explanation of the relationship between the perceived fairness of a selection system and post-hire self-perceptions. The organizational justice literature suggests that there is a positive relationship between these

two variables. The results of Heilman and her colleagues suggest that this relationship is moderated by some other variable, but the features of the experimental design make it impossible to determine if this is the case. In the next section, I will discuss how this situation is complicated even further by the fact that the role of performance in the relationship between the perceived fairness of a selection system and post-hire self-perceptions has thus far been ignored. Additionally, I will propose a model that attempts to adequately specify this relationship and integrate the construct of performance.

Proposed Model

In the previous section, I discussed the relationship between the perceived fairness of a selection system and the post-hire self-evaluations of performance. In doing so, I made clear that neither the organizational justice literature nor the research of Heilman and her colleagues adequately specifies this relationship. What should be becoming apparent by this point is the need for a model that explicates the relationship between the perceived fairness of a selection system and the post-hire self-evaluations of performance, and that this model must take into account the potential roles of *sex*, *job stereotype fit,* and *ISC.* In this section, I will propose such a model. Additionally, I will note the limited use of *performance* in research on this topic, and I will integrate this construct into the proposed model. Figure 1 in Appendix A shows the proposed model and each subsequent subsection describes each of the major propositions in the model.

Overview of experiment

Before introducing the model, I am going to provide a brief description of the current study. In doing so, I will present definitions of terms that are central to understanding the model, and I will illustrate the ways in which my experimental design

is similar to that of Heilman and her colleagues. Participants were informed that they would potentially be selected to perform a job that was either described as a secretarial position or a senior executive position and that those who were not selected would have to answer a 500-item questionnaire to earn their experimental credits. Participants were given a pre-test, which they were told would be used to determine whether or not they would be selected for the job. Upon completion, they were told that they had been selected, and they were informed of the basis upon which the selection decision was reached. Finally, they completed a sample task that they were told was associated with the job for which they had been selected, and they filled out some dependent measures. One of these measures was a *self-evaluation of performance*, which is the primary dependent variable of interest.

More details will be provided later, but briefly, the independent variables in this design are the *sex of the participant* (male, female), *method of selection* (merit-based, preferential), and *sex-type of the job* (neutral, female). The first two variables are included in Heilman's design, and the method of selection is intended to vary the procedural fairness of the selection system. In the merit-based system, participants are told that they were selected on the basis of their pre-test scores. In the preferential selection system, participants are told that they were selected on the basis of their sex. The third independent variable, the sex-type of the job, is not included in Heilman's design and its inclusion, along with the measurement of ISC, allows a test of her proposed explanation for her results. I will now describe in more detail the proposed relationships among these variables.

Method of selection and perceived fairness

Consistent with research of Heilman and her colleagues, I propose that the *method of selection* (merit-based or preferential) will influence participants' perceptions of fairness of the selection procedure. Heilman et al (1991) found a main effect for method of selection, indicating that participants selected on the basis of merit perceived the process to be fairer than did those selected preferentially on the basis of sex. Additionally, the preferential selection condition violates Leventhal's procedural justice criteria of consistently applying policies across people and time, and thus is considered to be a procedurally unfair advantage to the participant. Therefore, I expect participants who are selected on the basis of merit will perceive the selection procedure to be fairer than those who are selected preferentially.

> Hypothesis 1: Participants who are told that they were selected on the basis of merit will report higher levels of perceived fairness of the selection procedure than those who are told that they were preferentially selected.

Perceived fairness and self-evaluations of performance

The relationship between the perceived fairness of the selection procedure and post-hire self-evaluations of performance is the focus of research by the previously mentioned organizational justice researchers (e.g., Gilliland) and Heilman and her colleagues. As stated previously, it is unclear whether the relationship between the perceived fairness of the selection system and the post-hire self evaluations of performance is moderated by the *sex* of the participant, by the extent to which the participant *fits the sex-type* of the job, or by some other variable, such as ISC.

I propose that (1) there is an interactive effect of *sex* and *job sex-type* on *ISC*, and that (2) ISC moderates the relationship between the perceived fairness of the selection

procedure and post-hire self-evaluations of performance. I will now detail and provide support for each of these propositions.

The interactive effect of sex and job sex-type on ISC

As noted by Wood and Bandura (1989) individuals have preconceived notions of whether or not they can perform a task. There are several factors that influence an individual's estimate of his/her capacity to perform (i.e., ISC), including an analysis of task requirements, an attributional analysis of experience, and an assessment of personal and situational resources/constraints (Gist & Mitchell, 1992). Recently, Claude Steele and his colleagues have proposed that *stereotype threat*, defined as being at risk of conforming, as a self-characteristic, a negative stereotype about one's group, will decrease ISC (Steele & Aronson, 1995). This is consistent with the achievement motivation research that suggests that females have a lower expectancy for success in academic situations (Dweck, Goetz, & Straus, 1980; Erkut, 1983; McMahan, 1982; Parsons, Meece, Adler, & Kaczala, 1982) because achievement tasks generally are viewed as "masculine" (Basow & Medcalf, 1988).

Therefore, I expect females' ISC to be higher when they fit the job stereotype. That is, the greater the extent to which a job is thought of as a "man's job," the greater the disparity between males' and females' ISC levels such that females will have lower levels of ISC than males. Conversely, the lesser the extent to which a job is thought of a "man's job," the lesser the disparity between males' and females' ISC levels. This hypothesis is supported by research from the sex roles literature, which indicates that males and females expect to do equally well on female sex-typed tasks, but females are lower in self-confidence on tasks that are male in sex-type (Deaux & Emswiller, 1974;

Lenney, 1977; Stein, Pohly, & Mueller, 1971).

> Hypothesis 2: The relationship between the sex of the participants and their level of ISC is moderated by the sex-type of the job. More specifically, there is an inverse relationship between the females' ISC to perform the job and the degree to which the job is perceived as a "man's job," whereas males' ISC to perform the job is not influenced by the sex type of the job. In short, females' ISC varies with job stereotype fit, but males' ISC does not.

This leads to the next portion of the model, which proposes that ISC moderates the relationship between the perceived fairness of the selection system and post-hire self-evaluations of performance.

The role of ISC

As previously mentioned, Heilman and her colleagues have found that females experienced lower self-perceptions when selected preferentially, but that males' self-evaluations were not affected. Again, they have suggested that the reason that males and females respond differently to being hired through what is perceived to be an unfair selection system is because they differ on their level of initial self-confidence (ISC) to perform the job. They have proposed that the relationship between the perceived fairness of a selection system and post-hire self-perceptions is actually moderated by ISC to perform the job, but because of the limiting features of their experimental design (described above), this proposition remains untested.

Therefore, based on the research of Heilman and her colleagues, I propose that there is an interactive effect of ISC and perceived fairness on post-hire self-evaluations of performance. High ISC individuals will have similar self-perceptions regardless of the perceived fairness of the selection system. Low ISC individuals will have lower self-

evaluations of performance when they are selected through a system that they perceive to be unfair than when they are selected through a system that they perceive to be fair.

> Hypothesis 3: The relationship between the perceived fairness of a selection system and post-hire self-perceptions will be moderated by ISC to perform. More specifically, there will be a weaker positive relationship between the perceived fairness of a selection system and post-hire self-perceptions for high ISC individuals than for low ISC individuals.

As shown in Figure 1 in Appendix A, it is proposed that the relationship between perceived fairness and post-hire self-evaluations is mediated by performance. This relationship and the role of ISC in this relationship are discussed in the next sub-section.

The role of performance

As stated previously, neither the organizational justice literature nor the research of Heilman and her colleagues adequately specifies the relationship between the perceived fairness of a selection system and post-hire self-perceptions, and doing so is the primary purpose of this paper. However, a secondary purpose is to point out that both of these literatures have largely ignored the role of *performance* when studying the relationship between the perceived fairness of a selection system and post-hire self-perceptions. Thus, I want to draw attention to this omission and present a possible way in which performance might be integrated into the research.

I have detailed research investigating the relationship between the perceived fairness of a selection system and post-hire self-evaluations of performance (e.g., Gilliland, 1994; Heilman et al, 1998), and there are studies showing that there is a positive relationship between performance and self-evaluations (e.g., Bandura & Jourden, 1991; Horvath, Ryan, & Stierwalt, 2000). There have been a few studies showing that

the performance of individuals is lower when they believe they have benefited from an unfair selection procedure (see Turner & Pratkanis, 1993 for exceptions), but to the best of my knowledge, there have been no published studies investigating the role of task performance in the relationship between the perceived fairness of a selection system and post-hire self-evaluations of performance.

In sum, we know that perceived fairness influences performance and self-evaluations of performance and that there is a relationship between performance and self-evaluations of performance, but we do not know how all these relationships fit together. The current paper will begin to answer the following question: does task performance mediate (or partially mediate) the relationship between the perceived fairness of a selection procedure and post-hire self-evaluations of performance?

> Hypothesis 4: Perceptions of fairness will be positively related to performance on the experimental task.
>
> Hypothesis 5: Performance on the experimental task will be positively associated with participants' self-evaluation of performance.
>
> Hypothesis 6: Performance on the experimental task partially mediates the relationship between the perceived fairness of the selection procedure and self-evaluations of performance.

If performance does mediate the relationship between perceived fairness and post-hire self-evaluations, what is the role of ISC? Based on the research of Heilman and her colleagues and the strong relationship between ISC and performance (Locke & Latham, 1990), I expect that ISC will moderate the relationship between perceived fairness and task performance such that the extent to which the selection system is perceived as fair will only influence those with low ISC.

Hypothesis 7: The relationship between the perceived fairness of a selection system and performance will be moderated by ISC to perform. More specifically, there will be *no relationship* between the perceived fairness of a selection system and performance for high ISC individuals, but there will be a *positive relationship* between these variables for low ISC individuals.

Method

Participants and Design

Participants in this study included 509 undergraduates (153 males and 356 females) recruited from the introductory psychology subject pool of a large midwestern university. Ages ranged from 18 to 56 years with a median age of 20. The majority (84.7%) of participants were Caucasian. 79 participants were deleted from the sample due to failure to complete the experimental procedures. Hypotheses were testing using a 2 X 2 X 2 Sex (male, female) X Sex-type of the task (male, female) X Method of selection (preferential, merit-based) factorial design.

Procedure

This experiment was conducted entirely over the Internet. In an attempt to make being "selected" more desirable, the experiment was described as one in which participants would either perform a scheduling task or fill out a 500-item questionnaire for experimental credit. When participants filled out the consent form, they were asked some basic demographic questions, including their sex. Based on this information, both males and females were randomly assigned to one of four conditions (that varied by sex-type of task and method of selection).

Participants were given a pre-test and they were told that it would be used to determine whether or not they would be selected to perform the scheduling task. The task was described in a manner intended to either make it seem like a male sex-typed task or a

female sex-typed task. After the task was described to the participants, they were shown a sample problem, and then were asked to complete a measure of initial self-confidence to perform the job. Next, participants were given a test that they were told would be used to determine whether or not they would be selected. All participants will be told that they have been selected to perform the job, and they were told the basis upon which the selection decision was reached (merit or preference). Finally, they completed the scheduling task and the dependent measures. The task used in this study involved participants creating non-redundant schedules. This task is one that is well accepted within goal-setting research, and it was originally developed by Earley and Kanfer (1985).

Experimental Manipulations

Sex-type of the task

All participants completed the same scheduling task, but it was described as either a senior executive or as a secretarial position to have it perceived as either a male or as a female sex-typed job. The sex-type of each position was confirmed through pilot testing. Females reading the description of the executive position reported perceiving the job as more masculine than those who read the description of the secretarial position ($t(22) = 2.85$, $p < .01$). Those in the executive condition were also more likely to report that men more frequently hold this position than were those in the secretarial condition ($t(22) = 6.67$, $p < .001$). Moreover, their perception of what others would think was consistent with these results. Females reading the description of the executive position were more likely to report that others would see it as a "man's job" ($t(22) = 8.13$, $p < .001$) than those reading the description of the secretarial position. Additionally, they were more likely to

report that others believed that men were more qualified to perform the job ($t(22) = 5.30$, $p < .001$). Thus, the senior executive position will be referred to as the male sex-typed job.

Although females did not directly report seeing the secretarial position as a more feminine than did those in the executive position ($t(22) = -1.50$, $p > 05$), there is indirect evidence to suggest that this is the case. Those in the secretarial condition did report that women more frequently hold the job than those in the executive condition ($t(22) = 6.66$, $p < .001$). Additionally, those in the secretarial condition were more likely to report that others would see it as "woman's job" ($t(22) = 6.08$, $p < .001$). Moreover, they were more likely than those in the executive condition to report that others believed that women are more qualified to perform the job ($t(22) = -2.99$, $p < .05$). Thus, there was sufficient evidence to suggest the respondents did perceive the secretarial position as "woman's job," but that they were not willing to admit it, possibly for reasons of social desirability. Thus, the secretarial position will be referred to as the female sex-typed job. The results of the pilot study are summarized in Table 1 in Appendix A. The exact wording of this manipulation can be found in Appendix B. Also, it should be noted that the manipulation was salient throughout the entire experiment in that the task was continually referred to using its sex-typed title (i.e., secretarial or executive position).

Method of selection

All of the participants were selected, but some participants were told that they were selected on the basis of merit, whereas others were told that they were preferentially selected on the basis of their sex. This manipulation is virtually identical to that used by

Heilman and her colleagues (e.g. Heilman, et al, 1998). All participants were told the following:

> "Typically in situations like this, (senior executives, secretaries) are selected on the basis of both skill and ability, which basically means that they are good at the task. In our study, we also have attempted to select individuals who have demonstrated that they have the skill and ability to perform well as executives (secretaries), as measured by the pre-test you took online."

In the merit-based selection condition, participants were then told, "Therefore, you have been selected to perform the senior executive (secretary) job." In the preferential selection condition, participants were instead told "But because there have not been enough male (female) participants signing up for this study so far, we now have adopted a policy of giving the senior executive (secretary) job sample task to men (women). Therefore, you have been selected to perform the senior executive (secretary) job."

Measures

Pre-test: Air Force Qualifying Test

All of the measures can be found in Appendix C. The pre-test measure consisted of the verbal reasoning subsection of the Air Force Qualifying Test (Brandt & Burke, 1950). The measure consisted of 25 items, and the Spearman-Brown-corrected split-half reliability coefficient for the test was .70.

Initial self-confidence

Participants were shown a sample problem from the scheduling task, and then they were asked to assess how confident they are to perform the senior executive (secretary) job. Given the debate surrounding the measurement of self-efficacy (Lee & Bobko, 1994; Maurer & Pierce, 1998; Wood & Locke, 1987), the questions that participants answered were from three measures of self-efficacy. The first measure was developed by Wood and Locke (1987) and recommended by Lee and Bobko (1994). It is a 16-item measure asking participants to respond yes or no to whether or not they can complete a certain number of schedules and, if yes, it asks them to rate how confident they are on a scale of 1 to 10. The second measure was a modification of Wood and Locke's (1987) measure, recommended by Maurer and Pierce (1998). It is also a 16-item measure, and it uses a 5-point Likert response format. The final measure was developed by Sacco (1999). It is a 17-item measure, and it uses a 5-point Likert response format. I will now discuss each of these measures in more detail and justify the one used in the hypothesis tests.

The first self-efficacy measure is the one developed by Wood and Locke (1987). There are numerous methods for combining the self-efficacy magnitude and strength scores in Wood and Locke's (1987) measure, but Lee and Bobko (1994) found that the optimal composite involves combining the strength estimates for items in which the magnitude response was yes (Maurer & Pierce, 1998). The split-half reliability corrected with the Spearman-Brown prophecy formula for the items in this composite is .90. Although the distribution of the composite is reasonably normal and there are no outliers, this measure is not ideal because there were several instances in which the participant

marked "no" to whether or not they were confident, yet marked greater than 5 on magnitude of confidence. Specifically, 10.4% of participants had anywhere from 1 to 14 instances in which this occurred. Given that this is a Guttman scale, a confirmatory factor analysis is not appropriate, and therefore was not performed

The second self-efficacy was developed by Sacco (1999). It proved to be reliable (α=.95), but inspection of box plots revealed several univariate outliers. Additionally, the distribution of the composite score is non-normal. It has high kurtosis, indicating that observations cluster more and have longer tails than those in the normal distribution. Confirmatory factor analyses indicate that the data do not support the hypothesized factor structure (χ^2 (119) = 685.18, $p < .001$). The following descriptive fit statistics were also examined: Standardized root mean square residual (SRMR), Root Mean Square Error of Approximation (RMSEA), and the Tucker-Lewis Index (TLI). The SRMR was .043, the RMSEA was .097, the TLI was .909, indicating moderate fit.

The final measure was developed by Maurer and Pierce (1998), and it is a revision of the measure by Wood and Locke (1987). This measure proved to be reliable (α=.95), and the composite score yielded a normal distribution with no outliers. Given that this is a Guttman scale, a confirmatory factor analysis is not appropriate and was therefore not performed.

The primary measure used in subsequent hypothesis tests was the one developed by Maurer and Pierce (1998). This decision is based on its reliability, its univariate normality, and the absence of outliers. It is important to note that the other measures of ISC are not problematic and thus, they are also viable measures of the construct.

Therefore, I will conduct and report follow-up analyses on hypotheses involving ISC, and in these follow-up analyses, I will use the alternate measures of the construct.

Performance

Participants completed a scheduling task developed by Earley and Kanfer (1985) for goal-setting research. The task consists of producing unique, mock schedules. Each schedule consisted of five employees whose schedules are nonredundant and nonconflicting. Participants were provided with a list of eight employees each having at least ten different possible times and a list of rules that each schedule must meet. Each participant was given a score based on the number of correct schedules that were produced.

Self-evaluation of performance

This measure asked participants to assess their own performance on the task using a 5-point Likert response format. The measure administered contained 3 items, but subsequent analyses revealed that dropping one of the items increased the alpha level from .87 to .95, and therefore, a composite of the two remaining items was used in the hypothesis tests.

Procedural fairness measure

This measure assessed how fair the participants perceived the selection method to be, using a 5-point Likert response format. The measure administered contained 3 items, but subsequent analyses revealed that dropping one of the items increased the alpha level from .78 to .92, and therefore, a composite of the two remaining items was used in the hypothesis tests.

Results

Manipulation checks

In order to verify that the job sex-type and method of selection manipulations were effective, manipulation checks were conducted.

Job sex-type

The job sex-type manipulation contained 2 2-item scales that asked participants to rate the extent to which the job was perceived as male in sex-type ($\alpha = .76$) and female in sex-type ($\alpha = .78$) Each item used a used a 5-point Likert response format. To investigate how male and female participants perceived each of the positions, two two-way ANOVAs were performed. For both ANOVAs, the sex of the participant and the job type were the independent variables. The scale assessing the extent to which the job was perceived as female in sex-type served as the dependent variable for the first ANOVA, and the scale assessing the extent to which the job was perceived as male in sex-type served as the dependent variable for the second one. The descriptive statistics for the relevant variables are summarized by sex in Table 2 in Appendix A.

The main effects detected through the first ANOVA were as follows. As expected, there was a unique main effect for job type ($F(1, 504) = 50.25$, $p < .01$) on the extent to which the job was perceived as male in sex-type such that participants in the secretarial position reported perceiving the job as more female in sex-type than did those in the executive position. Additionally, there was a unique main effect for sex ($F(1,504) = 18.67$, $p < .01$) such that male participants reported perceiving both jobs as more female in sex-type than did the female participants. Finally, there was an interactive effect of sex

and job type such that males reported perceiving a larger discrepancy in the sex-type of the job than did females ($F(1,504) = 23.76$, $p < .01$). That is, the extent to which those in secretarial position reported the job as more female in sex-type (than those in the executive position) was larger for males ($t(151) = -5.89$, $p < .001$) than it was for females ($t(353) = -3.83$, $p < .001$).

The results of the second ANOVA also revealed a unique main effect for job type ($F(1,504) = 8.120$, $p < .01$) and for sex ($F(1,504) = 49.83$, $p < .01$). The main effect for sex was consistent with the first ANOVA such that males reported both jobs to be more male in sex-type than females did. The main effect for job type was not in the expected direction, and this is better explained by the two-way interaction between the sex of the participant and the sex-type of the job. Specifically, males in the executive position did not report perceiving the job as significantly more male in sex-type than those in the secretarial position ($t(151) = -.043$, $p > .05$), and the females in the executive position actually reported perceiving the job as significantly less male in sex-type than those in the secretarial position ($t(353) = -5.6$, $p < .001$).

Given that the participants in the senior executive position did not report perceiving the job as more male in sex-type than those in the secretarial position, one could argue that the job sex-type manipulation failed. However, this seems unlikely given that the manipulation was effective for females who read the task description in the pilot study. One important difference between the pilot study and the full study is the timing of the manipulation check. While participants in the pilot study completed the manipulation check immediately after reading the job description, participants in the full study completed the manipulation check after performing the task and completing all the

dependent measures. Thus, I believe that the manipulation worked effectively, but that this was not detected by the manipulation check due to intervening variables. I will discuss this issue further when I note the limitations of this study.

In sum, I will refer to the secretarial position as the female sex-typed job and the executive position as the male sex-typed job.

Method of selection

The method of selection manipulation check contained 2 items, one which said "I was selected for the senior executive (secretarial) position on the basis of my abilities" and the other "on the basis of my gender." Analysis of the mean difference in responses to these items across conditions revealed that those in the merit condition were significantly more likely to report that they had been selected on the basis of their abilities ($t(507) = 6.90, p < .001$) and significantly less likely to report they had been selected on the basis of their gender ($t(507) = -12.32, p < .001$). The means and standard deviations by condition are reported in Table 3 in Appendix A.

Hypothesis Tests

Note that Table 4 in Appendix A presents descriptive statistics and intercorrelations for the variables examined in the study. Hypothesis 1 was tested using an independent samples one-tailed t test, which revealed that participants who were told that they were selected on the basis of merit reported significantly higher perceptions of fairness than those who were told that they were preferentially selected, $t(507) = 2.75$, $p < .05$. Means and standard deviations are presented in Table 5 in Appendix A.

Hypothesis 2 proposes that females' ISC varies with job stereotype fit, but males' ISC does not. To test Hypothesis 2, a standard multiple regression was performed

between ISC as the dependent variable and the sex, the job sex-type, and the interaction term as independent variables. As shown in Table 6 in Appendix A, neither the sex of the participant nor the sex-type of the job had a unique effect on participants' ISC, but they do have a significant interactive effect on the outcome of interest ($\Delta R^2 = .009$, $p < .05$). The interactive effect operated differently than predicted such that *both* males' and females' ISC vary by job sex-type. More specifically, male participants' report a marginally significantly higher level of self-confidence to perform the job when assigned to the male sex-typed job than the female sex-typed job ($t(151) = 1.50$, $p < .15$), and female participants' report a marginally significantly higher level of self-confidence to perform the job when assigned to the female sex-typed job than to the male sex-typed job ($t(354) = -1.67$, $p < .10$). In short, participants' report marginally significantly higher levels of ISC when they have job stereotype fit than when they do not. Neither sex nor job type had a unique main effect on ISC. However, there was a .9% increase in variance explained in ISC by the interaction between these two variables.

So, do these varying levels of ISC moderate the relationship between the perceived fairness of a selection system and post-hire self-perceptions? This is what Hypothesis 3 proposes, based on the work of Heilman and her colleagues. Heilman's previous research suggests that there is a less positive relationship between the perceived fairness of a selection system and post-hire self-perceptions for high ISC individuals than for low ISC individuals. This hypothesis was tested using standard multiple regression with the post-hire self-perceptions as the dependent variable and the perceived fairness, ISC, and the interaction term as the independent variables. As shown in Table 7 in Appendix A, participants' perceptions of fairness and ISC each uniquely contribute to

post-hire self-evaluations of performance ($R^2 = .09$, $p < .001$), but there is no significant interactive effect between perceived fairness and ISC on self-evaluations ($\Delta R^2 = .00$, $p > .05$). Thus, these results do not support Heilman's proposition that ISC moderates the relationship between the perceived fairness of a selection system and post-hire self-evaluations of performance, but rather they provide support for the organizational justice perspective that perceived fairness is positively related to post-hire self-perceptions. Additionally, these results extend the findings of the organizational justice literature by suggesting that perceived fairness predicts post-hire self-evaluations above and beyond ISC ($\Delta R^2 = .04$, $p < .001$).

This leads us to Hypotheses 4 through 6, which take into account the role of performance in the relationship between perceived fairness of a selection procedure and post-hire self-perceptions. There is support for Hypotheses 4 and 5, which suggest that there a positive relationship between perceived fairness and performance ($r = .19$, $p < .001$) and between performance and post-hire self-evaluations of performance ($r = .67$, $p < .001$). In order to determine if performance partially mediates the relationship between perceived fairness and post-hire self-evaluations, I performed two sets of standard multiple regression analysis and I inspected the regression coefficient of perceived fairness after including performance in the equation to see if there was a decrease in magnitude (while remaining significant). And in fact, as shown in Tables 8a though 8d in Appendix A, this was the case, indicating that performance partially mediates the relationship between perceived fairness and post-hire self-evaluations. These analyses revealed that, while performance explains the majority of the variance in post-hire self-evaluations (45%), perceived fairness explains an additional 1.2%.

Finally, I tested Hypothesis 7 to determine if ISC moderates the relationship between perceived fairness of the selection system and performance on the task. This hypothesis was tested using standard multiple regression with performance as the dependent variable and perceived fairness, ISC, and the interaction term as the independent variables. As shown in Table 9 in Appendix A, perceived fairness and ISC each uniquely contribute to performance, but there is no significant interaction between the two ($\Delta R^2 = .003, p > .05$).

Additional analyses

Alternate measures of ISC

Additional analyses were conducted for all hypotheses involving ISC to assess whether the results would be appreciably different had one of the alternate measures been used. Thus, follow-up analyses of Hypothesis 2 were conducted using Wood and Locke's (1987) and Sacco's (1999) measures of ISC. As shown in Tables 10a and 10b in Appendix A, neither the sex of the participant nor the sex-type of the job have a unique effect on Wood and Locke's (1987) measure of participants' ISC, nor do they have a significant interactive effect on the outcome ($\Delta R^2 = .004, p > .05$). The same was true using Sacco's measure ($\Delta R^2 = .004, p > .05$). The difference between these results and those using the Maurer and Pierce (1998) measure is that the interaction is no longer significant. Given the previously noted concerns with these two measures (e.g., nonsense responses and outliers), it makes sense that these measures are less able to detect this interactive effect.

Follow-up analyses of Hypothesis 3 were also conducted with the Wood and Locke (1987) measure and the Sacco (1999) measure. As shown in Tables 11a and 11b in

Appendix A, the results of these tests were consistent with the initial test. Participants' perceptions of fairness and ratings on Wood and Locke's measure of ISC each uniquely contribute to post-hire self-evaluations of performance ($R^2 = .07, p < .001$), but there is no significant interactive effect between perceived fairness and ISC on self-evaluations ($\Delta R^2 = .00, p > .05$). Participants' perceptions of fairness and ratings on Sacco's measure of ISC each uniquely contribute to post-hire self-evaluations of performance ($R^2 = .09, p < .001$), but there is no significant interactive effect between perceived fairness and ISC on self-evaluations ($\Delta R^2 = .00, p > .05$).

Finally, follow-up analyses of Hypothesis 7 were conducted with the Wood and Locke (1987) measure and the Sacco (1999) measure. As shown in Tables 12a and 12b in Appendix A, these results were consistent with the initial test in that there was no support for the proposed interactive effect of perceived fairness and ISC on performance ($\Delta R^2 = .00, p > .05$ for Wood & Locke; $\Delta R^2 = .00, p > .05$ for Sacco).

Further investigation of Heilman's findings

Another set of follow-up analyses were conducted on Hypothesis 3 to explore the possibility that sex acts a moderator of the relationship between perceived fairness and post-hire self-evaluations. As discussed previously, Heilman and her colleagues proposed that ISC moderates this relationship, but their experimental design makes it impossible to determine if sex or ISC (or neither) acts as a moderator. One advantage of testing these possibilities with this experimental design rather than the one used by Heilman and her colleagues is that it does not confound sex with job stereotype fit. That is, it is not the case in the current study that all the males are selected for a position for which they have

a *presence* of fit and all females are selected for a position for which they have an *absence* of fit.

Given that the results of this study do not support the proposition that ISC acts as a moderator, one might wonder if the sex of the participant moderates this relationship (as reported by Heilman et al, 1987) such that females' self-evaluations are positively related to the perceived fairness of the selection system and males' self-evaluations are unrelated to the perceived fairness. Another possibility is that sex moderates the relationship between perceived fairness and performance such that females' performance levels are positively related to the perceived fairness of the selection system and males' performance levels are unrelated to the perceived fairness.

To test the first possibility, a standard multiple regression was performed between self-evaluations as the dependent variable and the sex, the perceived fairness, and the interaction term as independent variables. As shown in Table 13a in Appendix A, the results did not provide support for the proposed interactive effect of sex and perceived fairness on post-hire self-evaluations of performance ($\Delta R^2 = .002$, $p > .05$). A similar analysis was performed to test the second possibility. As shown in Table 13b in Appendix A, the results did not provide support for the proposed interactive effect of sex and perceived fairness on performance ($\Delta R^2 = .00$, $p > .05$).

ISC and self-evaluations: The role of performance

Thus far, the results of this study suggest that there is an interactive effect of sex and job type on ISC, that ISC and perceived fairness have unique effects on performance, and that performance mediates the relationship between perceived fairness and self-evaluations. Thus, follow-up analyses were conducted to determine whether performance

also mediates the relationship between ISC and self-evaluations of performance. In order to determine if performance partially mediates the relationship between ISC and post-hire self-evaluations, I performed two sets of standard multiple regression analysis and inspected the regression coefficient of ISC after including performance in the equation to see if there was a decrease magnitude (while remaining significant). And in fact, as shown in Tables 14a though 14d in Appendix A, this was the case, indicating that performance partially mediates the relationship between ISC and post-hire self-evaluations. Again, performance explains the majority of variance in post-hire self-evaluations (45%), but ISC explains an additional 1%. In sum, the results of this study support the revised model shown in Figure 2 in Appendix A.

Discussion

The main objective of this paper is to propose a model that contributes to the organizational justice literature by clarifying the nature of the relationship between the perceived fairness of a selection procedure and post-hire self-evaluations and by integrating the construct of performance. Specifically, I am contending that it is important to reconcile the findings of Heilman and her colleagues with those of the organizational justice literature. Moreover, it is important that we understand the role of performance in the relationship between the perceived fairness of a selection system and post-hire self-perceptions. In this section, I will first review my key findings. Next, I will note the limitations of this study as well as potentially productive avenues of future research. And, finally, I will address the implications of this study for our understanding of self-perceptions in the workplace.

Key findings

The first key finding concerns the relationship between the perceived fairness of a selection procedure and post-hire self-evaluations. The organizational justice literature suggests that there is a positive relationship between these two variables, while the research of Heilman and her colleagues suggests that this relationship may be moderated by sex or by ISC. I will now comment on how the current study begins to resolve the discrepancy between these two bodies of work. The results of the current study provide support for the organizational justice perspective rather than for the propositions made by Heilman and her colleagues. The findings are consistent with the organizational justice perspective such that they suggest that there is a positive relationship between the perceived fairness of the selection procedure and post-hire self-perceptions. They are inconsistent with the findings of Heilman and her colleagues such that there were no significant moderators detected. That is, neither sex nor ISC was found to moderate the relationship, and I will discuss each of these findings in more detail.

This study is the first empirical test of ISC as a moderator of the relationship between the perceived fairness of a selection system and post-hire self-perceptions, and as stated previously, the findings are inconsistent with the proposition made by Heilman and her colleagues. Additionally, the present study does not support the findings of Heilman and her colleagues, which suggest that sex acts as a moderator (Heilman et al, 1987, 1990, 1991). Thus, an essential question is *why* does the present study not replicate these findings. That is, why is it that the results of Heilman and her colleagues' research suggest that the sex of the participant moderates the relationship between the perceived fairness of a selection system and post-hire self-perceptions, while the results of this

study do not? One possible explanation lies in the psychological fidelity of the experimental design of the aforementioned studies. As previously discussed, I propose that the experimental design of Heilman and her colleagues does not bear high psychological fidelity to an actual work situation. That is, it is not common for applicants to be selected in front of other applicants, much less for the unselected applicants to become their subordinates. In contrast, the experimental design of the present study involves the applicants being individually informed that they have been selected, and then carrying out the task on their own. As a result, it bears far greater fidelity to an actual selection situation. While the results of this study certainly do not rule out the possibility that sex acts as a moderator, I am arguing that they provide compelling evidence to the contrary.

So, what are the implications of this finding for Heilman's research paradigm? That is, what should she do differently (if anything)? The results of this study suggest that there are some features of her design that might merit adjustment. Specifically, it might be useful to vary the sex-type of the job, to measure ISC, and to make efforts to improve the psychological fidelity of the selection process. It would be interesting to see the results of future empirical investigations of the effects on self-perceptions of being preferentially selected after adjusting these features of the design.

Another important question is what are the implications of this study for organizational practice where preferential treatment programs may be in place? This study bolsters the findings of the organizational justice literature by demonstrating that this specific procedural justice violation, the perception that one has been selected on the basis of sex rather than merit, has negative consequences for individuals' performance

and for their self-perceptions. Moreover, it has negative consequences for males, for females, and for individuals with varying levels of ISC. Thus, although organizations are not legally permitted to engage in preferential selection, this finding underscores the importance of managing the perception that that they might do so. Namely, it is in the best interest of those hired and of the organization to be explicit when hiring applicants about their qualifications for the job so that they do not have the perception that they were hired through inconsistent procedures.

In sum, this finding contributes to the organizational literature by beginning to reconcile the discrepancy between this literature and the findings of Heilman and her colleagues. The findings of this study are consistent with the organizational justice literature in that they suggest that there is a positive relationship between the perceived fairness of a selection system and post-hire self-perceptions. Additionally, this study suggests that this relationship holds true regardless of the sex of the applicant, the ISC of the applicant, or the sex-type of the job for which the individuals are applying.

The second key finding of this study concerns the factors influencing ISC. Specifically, analyses revealed that applicants who fit the job stereotype report marginally significantly higher levels of ISC than those who do not. This is an especially compelling finding when the reader is reminded that the job was actually the same task through both conditions and that the job stereotype was manipulated simply by changing the name of the position. This finding is somewhat consistent with previous research. It is consistent in that previous studies have suggested that females have higher ISC for jobs that are female rather than neutral or male in sex-type (e.g., Bridges, 1988). However, it

is inconsistent in that these same studies have found that males' ISC is not affected by the job sex-type, and I will now briefly address this issue.

Why might males in the present study report marginally lower levels of ISC for the secretary position than for the executive position? One potential line of reasoning is that both males and females experience lower levels of ISC when they believe that there is a perception by others that they are less qualified to perform the job. As previously discussed, the results of the pilot study revealed that those in the executive condition were more likely (than those in the secretarial condition) to report that others believed that men are more qualified to perform the job ($t(22) = 5.30$, $p < .001$). Additionally, it seems that sex roles are changing. Those in the secretarial condition were more also likely to report that others believed that women are more qualified to perform the job ($t(22) = -2.99$, $p < .05$). Thus, it is possible that individuals report lower levels of ISC when they believe that they are perceived as not qualified for the job. These results are certainly preliminary, but this is a potentially viable area of future research. In sum, this study highlights some person and situation characteristics that impact individuals' ISC. It appears that both males and females may be vulnerable to lower ISC when applying for a job for which they do not fit the sex stereotype.

The final key finding concerns the role of performance. The results of this study suggest that performance partially mediates the relationship between the perceived fairness of a selection procedure and post-hire self-evaluations as well as the relationship between ISC and post-hire self-evaluations. Furthermore, even after controlling for ISC, perceived fairness has a unique effect on performance (although it admittedly only increases variance explained from 45.0% to 46.2%). Given the importance of job

performance to industry, this is a certainly an important finding. There is a wide range of self-confidence levels in individuals hired by an organization, and this finding suggests that that the positive effects on job performance of being selected through a fair selection system are not isolated to one sub-set of them. Moreover, this finding supports the claim of Tyler and others (e.g., Tyler & Blader, 2000) that there are negative effects of a procedurally unfair system, even when the individual ultimately receives a positive consequence.

Taken together, these three key findings support the model in Figure 2 in Appendix A. Sex and job type have an interactive effect on ISC. Perceived fairness and ISC each have unique effects on performance. Additionally, performance partially mediates the relationship between perceived fairness and self-evaluations and between ISC and self-evaluations.

Limitations

There are at least three limitations of this study that should be noted. The first limitation of this study is that it is narrow in scope both in terms of job stereotypes and procedural justice violations. That is, there are obviously additional job stereotypes worthy of investigation including those about race and age. Additionally, this study focuses on a one type of procedurally unfair advantage: inconsistent procedures. There are obviously countless other justice violations relevant in a selection context, such as opportunity to perform, job relatedness, and explanation for decision. Moreover, it focuses on a specific example of inconsistent procedures: sex-based preferential selection. Thus, it is possible that the results of this study do not generalize to instances involving other procedural justice violations.

The second limitation of this study is that it was conducted in a lab setting. I maintain that this study bears higher psychological fidelity to an actual selection situation that that of Heilman and her colleagues. However, having college undergraduates lead themselves through a psychology experiment over the Internet is clearly not an ideal method of assessing of the effects on self-evaluations of various personnel selection procedures. From a measurement perspective, an ideal experiment would be conducted with actual applicants who are invested in the selection decision. However, hiring individuals through procedures that are expected to be perceived as unfair is obviously unethical. Managing this tension is a continuing challenge for applied psychologists.

The third limitation of this study is that there is not clear evidence that the job sex type manipulation was effective. Although there is evidence to suggest that the secretarial position was perceived as a female sex-typed job, the manipulation check did not reveal that that executive position was perceived as a male sex-typed job. Specifically, participants in the senior executive position did not report perceiving the job as more male in sex-type (than those in the secretarial position). Moreover, the females in the executive position actually reported perceiving the job as significantly less male in sex-type than those in the secretarial position. However, the results of the pilot study were more promising, in which females reading the description of the executive position reported perceiving the executive position as more masculine ($t = 2.85$, $p < .01$). I am arguing that the pilot study manipulation check is superior to the one in the regular study. While the latter might be influenced by intervening variables such as the task itself, participants' perception of their performance, and fatigue, the former was conducted immediately after the manipulation. In sum, although there is not clear evidence in

support of this argument, I am reasoning that the manipulation was effective. Specifically, I contend that the manipulation check conducted in the pilot study is more precise and, thus, provides sufficient evidence to support this point.

Future directions

One future direction for research examining the relationship between the perceived fairness of a selection procedure and post-hire self-perceptions is to conduct more studies that examine within-person changes in self-perceptions rather than between-person comparisons. One might argue that within-person changes were investigated in current study with the analyses investigating whether ISC acts a moderator of the relationship, but, unfortunately, the ISC measure and the self-evaluation measure are not similar enough to serve as equivalents in pre/post analyses. One reason that future efforts to assess within-person changes would be valuable is because it would assist us in determining whether self-evaluations *decrease* or *remain unchanged* as a result of being selected through an unfair selection procedure, a question that remains yet unanswered by the empirical literature.

Another potentially fruitful avenue of future research concerns the notion of resiliency. While research to date has focused on the generally negative consequences experienced by individuals selected unfairly and by those experiencing a lack of job stereotype fit, it might be interesting to investigate instances in which individuals exhibit resilient response pattern. Resiliency is alluded to in the work of Dweck and her colleagues (called "mastery response patterns) (Dweck, 1986) and explicitly studied by other researchers (e.g., Klohnen, 1996).

Additionally, it might be interesting to examine the benefit of improving the procedural justice of a selection system from a utility perspective. That is, by how much and for how long does being selected through a procedure that is perceived to be fair influence performance, and how much is that person's performance worth in dollars? Finally, it might be interesting to investigate situational characteristics in which perceptions of fairness may have a stronger or lesser impact on self-perceptions. For example, one might hypothesize that perceptions of fairness have a stronger relationship with self-perceptions when the outcome of interest is more valuable, meaning that fairness is more important in high-stakes situations.

Concluding comments

Understanding the characteristics of a selection procedure that influence applicants' perceptions of fairness and, in turn, their self-perceptions is valuable because self-perceptions have both short and long term benefits to motivation and job performance. ISC is an important motivational construct in that it influences individual choices, goals, emotional reactions, effort, coping, and persistence (Gist & Mitchell, 1992), which have a collective influence on job performance. This major implication of this study is that it further supports the idea that there are short-term benefits associated with selecting individuals through fair selection procedures. However, one might argue that the study was conducted both in a controlled setting and in a short time frame, and thus, that it does not speak to the effect of these procedures in the real world because there are other intervening variables that play a role. In response, I reason that individuals' immediate performance and self-perceptions influence their motivation, response to feedback, and attributions, which then may, again, influence performance and

self-perceptions. Discussing this chain of events is beyond the scope of this paper, but it is important to draw the readers' attention to it, and in doing so, the potential long-term impact of individuals' self-perceptions at the time of hire.

In sum, the results of this study support the position of the organizational justice literature, which is that there is a positive relationship between the perceived fairness of the selection system and post-hire self-perceptions. Moreover, the results of this study do not suggest that this positive relationship is limited to one group or to one situation, as suggested by Heilman and her colleagues. Additionally, this study clarifies the role of performance in this relationship, which has thus far been ignored by both of these literatures. Finally, a model was proposed that contributes to the organizational justice literature by better specifying the relationship between the perceived fairness of a selection procedure and post-hire self-perceptions and by integrating the construct of performance.

APPENDIX A

Table 1

Descriptive statistics for pilot test

	Senior Executive		Secretary	
Item	**Mean**	**SD**	**Mean**	**SD**
This job seems "masculine"	3.27	1.10	2.15	.80
In general, men more frequently hold this job than women do.	4.00	.63	2.08	.76
Others would see this is as a man's job.	3.91	.54	1.92	.64
In general, others believe that men are more qualified to perform this job.	3.63	.81	2.15	.55
This job seems "feminine"	2.45	1.04	3.07	.95
In general, women more frequently hold this job than men do.	2.00	.63	3.92	.76
Others would see this is as a woman's job.	2.09	.70	4.00	.82
In general, others believe that women are more qualified to perform this job.	2.36	.92	3.46	.88

n = 24 females; Job descriptions are in Appendix A

Table 2

Descriptive statistics for Job Sex-type manipulation check by Sex

	Males				Females			
	Senior Executive (n=73)		Secretary (n=80)		Senior Executive (n=180)		Secretary (n=175)	
Scale	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Male in sex-type	4.71	2.08	4.72	2.08	3.25	1.32	4.09	1.49
Female in sex-type	3.96	1.48	5.58	1.87	3.73	1.63	4.41	1.68

Table 3

Descriptive statistics for Method of Selection manipulation check

	Merit-based Selection Condition		Preferential Selection Condition	
Item	**Mean**	**SD**	**Mean**	**SD**
I was selected for the senior executive (secretarial) position on the basis of my abilities	3.24	1.11	2.54	1.20
I was selected for the senior executive (secretarial) position on the basis of my gender	2.20	.89	3.43	1.31

Table 4

Descriptive statistics for all variables

	Min	Max	Mean	SD	1	2	3	4	5	6	7
Ability	2	22	11.91	3.98	.70						
Performance	0	10	3.54	3.42	.29**	NA					
Perceived Fairness	2	10	6.40	2.14	.02	.18**	.92				
Self-evaluation	2	10	5.53	2.69	.18**	.67**	.23**	.95			
ISC (Wood)	9	160	82.40	40.04	.11*	.17**	.18**	.18**	.90		
ISC (Maurer)	22	80	54.41	11.34	.13**	.22**	.18**	.24**	.82**	.95	
ISC (Sacco)	33	85	64.81	10.14	.14**	.19**	.22**	.24**	.60**	.68**	.95

N = 509; Reliabilities are indicated on the diagonal; ** p< .01; *p<.05

Table 5

Perceptions of Fairness by condition and by Sex

Preferential Selection Condition		**Merit-Based Selection Condition**	
Mean	**SD**	**Mean**	**SD**
6.17	2.26	6.64	1.99

N=509

Table 6

Interactive effect of Sex and Job Sex- type on ISC

	Initial self-confidence			
	β	SE	R^2	ΔR^2
Step 1				
Sex	.62	1.01		
Job type	-1.51	1.10	.005	
Step 2				
Sex X Job Type	4.70*	2.19	.01	.009*

N = 509; *p<.05;

Table 7

Interactive effect of perceived fairness and ISC on post-hire self-evaluations of performance

	Post-hire self-evaluations			
	β	SE	R^2	ΔR^2
Step 1				
ISC	.06**	.01	.056**	
Step 2				
Fair	.25**	.05	.093**	.037**
Step 3				
Fair X ISC	-.002	.005	.09**	.00

N = 509; **p<.01

Table 8a

Test of mediation

	Performance		
	β	SE	R^2
Fair	.30**	.07	.03*

N = 509; **p<.01

Table 8b

Test of mediation

	Post-hire self-evaluations		
	β	SE	R^2
Performance	.53**	.03	.45*

N = 509; **p<.01

Table 8c

Test of mediation

	Post-hire self-evaluations		
	β	SE	R^2
Fair	**.29****	.05	.05*

N = 509; **p<.01

Table 8d

Test of mediation

	Post-hire self-evaluations		
	β	SE	R^2
Performance	.51**	.03	
Fair	**.14****	.04	.46**

N = 509; **p<.01

Note the drop in magnitude of the bolded coefficient, indicating that performance partially mediates the relationship between perceived fairness and post-hire self-evaluations.

Table 9

Interactive effect of perceived fairness and ISC on performance

	Performance			
	β	SE	R^2	ΔR^2
Step 1				
Perceived fairness	.24**	.07		
ISC	.06**	.01	.07**	
Step 2				
Fairness X ISC	-.008	.006	.07**	.003

N = 509; **p<.01

Table 10a

Interactive effect of Sex and Job Type on ISC using Wood and Locke's (1987) measure of ISC

	Wood and Locke's (1987) measure of ISC			
	β	SE	R^2	ΔR^2
Step 1				
Job Type	4.27	3.55		
Sex	-6.31	3.87	.008	
Step 2				
Sex X Job Type	10.96	7.73	.012	.004

N = 509; None of the values are significant

Table 10b

Interactive effect of Sex and Job Type on ISC using Sacco's measure of ISC

	Sacco's measure of ISC			
	β	SE	R^2	ΔR^2
Step 1				
Job Type	-.24	.90		
Sex	-1.18	.98	.003	
Step 2				
Sex X Job Type	2.83	1.96	.007	.004

N = 509; None of the values are significant

Table 11a

Interactive effect of perceived fairness and ISC on self-evaluations using Wood and Locke's measure of ISC

	Post-hire self-evaluations of performance			
	β	SE	R^2	ΔR^2
Step 1				
Fair	2.59**	.06		
ISC	.01**	.003	.074**	
Step 2				
Fair X ISC	.0003	.001	.075**	.00

N = 509; **p < .01

Table 11b

Interactive effect of perceived fairness and ISC on self-evaluations using Sacco's measure of ISC

	Post-hire self-evaluations of performance			
	β	SE	R^2	ΔR^2
Step 1				
ISC	.05**	.01		
Fair	.24**	.05	.09**	
Step 2				
Fair X ISC	-.0004	.005	.09**	.00

N = 509; **p < .01

Table 12a

Interactive effect of perceived fairness and ISC on performance using Wood and Locke's measure of ISC

	Performance			
	β	SE	R^2	ΔR^2
Step 1				
Fair	.25**	.07		
ISC	.01**	.004	.05**	
Step 2				
Fair X ISC	-.001	.002	.05**	.00

N = 509; **p < .01

Table 12b

Interactive effect of perceived fairness and ISC on performance using Sacco's measure of ISC

	Performance			
	β	SE	R^2	ΔR^2
Step 1				
ISC	.24**	.07		
Fair	.05**	.02	.06**	
Step 2				
Fair X ISC	-.002	.006	.06**	.00

N = 509; **p < .001

Table 13a

Interactive effect of perceived fairness and sex on self-evaluations

	Post-hire self-evaluations of performance			
	β	SE	R^2	ΔR^2
Step 1				
Sex	.21	.25		
Fair	.29**	.05	.06**	
Step 2				
Fair X Sex	.129	.119	.06**	.002

N = 509; **p < .01

Table 13b

Interactive effect of perceived fairness and sex on performance

	Post-hire self-evaluations of performance			
	β	SE	R^2	ΔR^2
Step 1				
Sex	.27	.33		
Fair	.30**	.07	.04**	
Step 2				
Fair X Sex	.02	.15	.04	.00

N = 509; **p < .01

Table 14a

Test of mediatio

	Performance		
	β	SE	R^2
ISC	.07*	.013	.05**

N = 509; **p<.01

Table 14b

Test of mediation

	Post-hire self-evaluations		
	β	SE	R^2
Performance	.53**	.03	.45*

N= 509; **p<.01

Table 14c

Test of mediation

	Post-hire self-evaluations		
	β	SE	R^2
ISC	**.06****	.01	.06**

N = 509; **p<.01

Table 14d

Test of mediation

	Post-hire self-evaluations		
	β	SE	R^2
Performance	.51**	.03	
ISC	**.02****	.008	.46**

N = 509; **p<.01

Note the drop in magnitude of the bolded coefficient, indicating that performance partially mediates the relationship between ISC and post-hire self-evaluations.

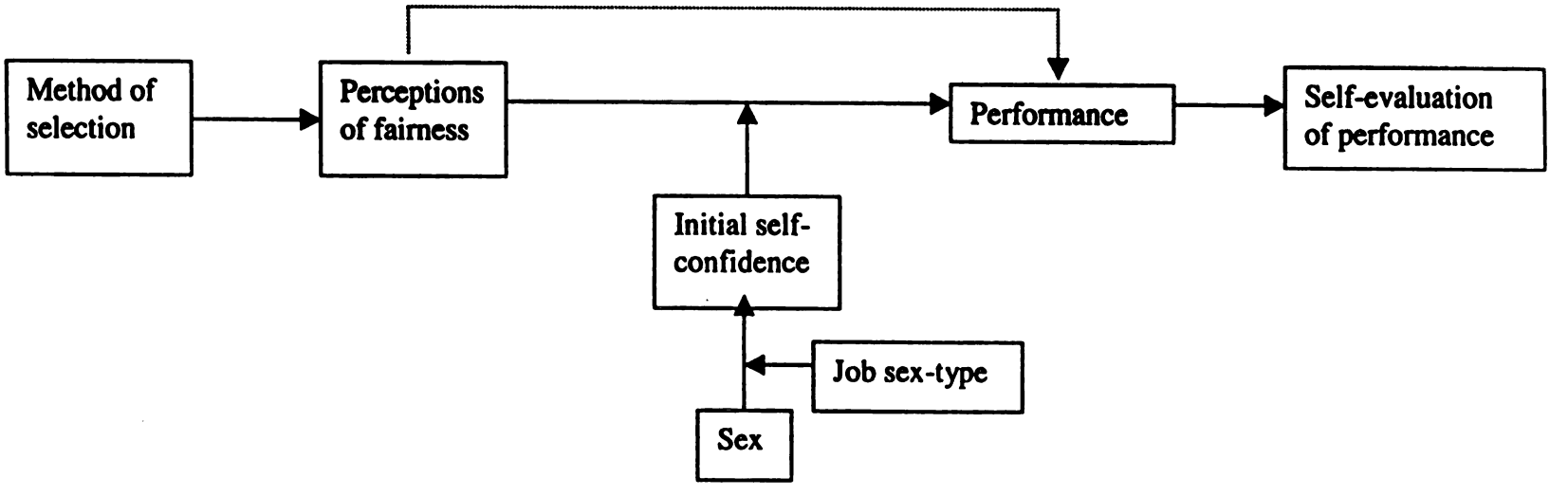

Figure 1: Proposed model.

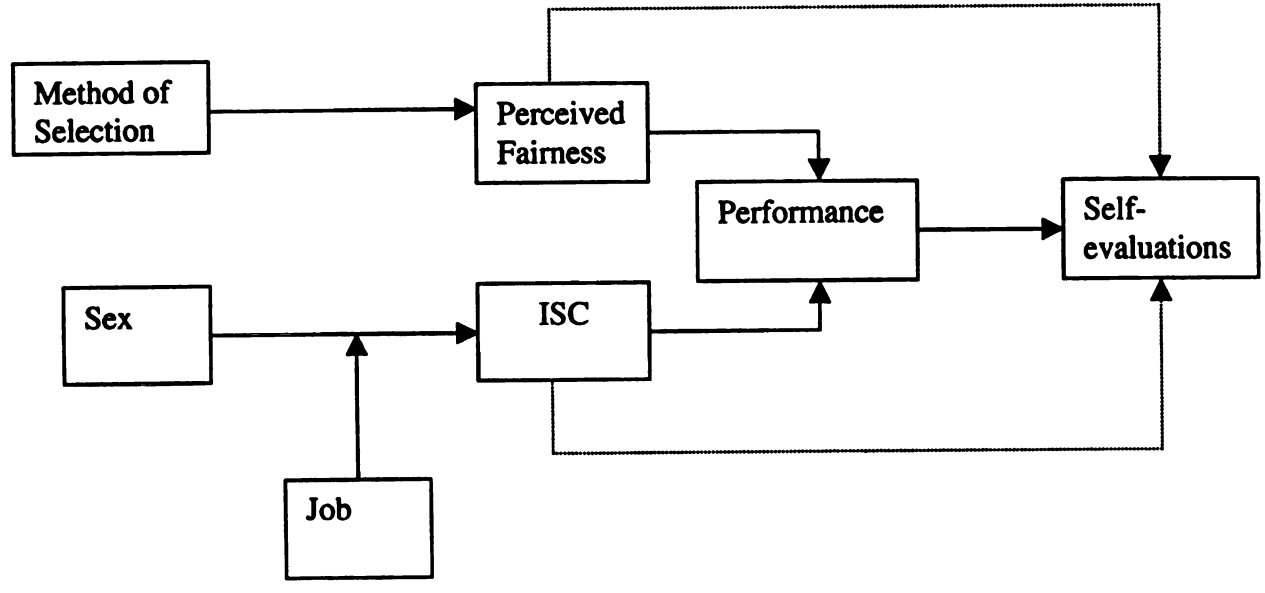

Figure 2: Revised model.

APPENDIX B

Description of secretarial position

Think of the job of a SECRETARY in a Fortune 500 company such as IBM or Boeing. Think about your initial impressions of the job – for example, think about what a person with this job does everyday, with whom this person might interact, and what the office of a secretary might look like. Now, imagine yourself as a SECRETARY for a Fortune 500 company such as IBM or Boeing. Today, you will be completing some of the duties your boss has requested. More specifically, you are going to create the schedule for your boss's subordinates. The organization for which you work is under construction, so space is currently very limited, and all employees must share one conference room. As the SECRETARY, it is your responsibility to come up with as many non-redundant conference room schedules as possible. This task is very important because the organization does not want to lose business and therefore needs to be ready to accommodate several clients' schedules.

Description of senior executive position

Think of the job of a SENIOR EXECUTIVE in a Fortune 500 company such as IBM or Boeing. Think about your initial impressions of the job – for example, think about what a person with this job does everyday, with whom this person might interact, and what the office of a senior executive might look like. Now, imagine yourself as a SENIOR EXECUTIVE for a Fortune 500 company such as IBM or Boeing. Today, you are going to create the schedules for your subordinates. The organization for which you work is under construction, so space is currently very limited, and all employees must share one conference room. As the SENIOR EXECUTIVE, it is your responsibility to come up with as many non-redundant conference room schedules as possible. This task is very important because the organization does not want to lose business and therefore needs to be ready to accommodate several clients' schedules.

APPENDIX C

Informed consent

Subject's Name: _____ Date: _____

Project Title:	Cognitive ability and personality tests
Investigators' Names:	Ann Marie Ryan and Jennifer Carr
Description and Explanation of Procedure:	In this study, you will be taking a cognitive ability test and then you will either be performing a scheduling task and filling out some questionnaires or just filling out questionnaires.
Estimated time required:	1.5 hours
Risks and discomforts:	None

The above procedures have been described to you, and in the debriefing, you will be fully informed of entire study with its possible benefits and risks. At that time, you will have also the opportunity to not sign this consent form. Furthermore, you will be able to view your responses at a later date and be fully debriefed on them if you so desire. The investigators will be available to answer any questions you may have. If, at any time, you feel your questions have not been adequately answered, you may speak with the Head of the Department of Psychology (Dr. Gordon Wood, 355-9563), or the University Committee on Research Involving Human Subjects (355-2180). You are free to withdraw this consent and discontinue participation in this project at any time without penalty. If you choose to withdraw from the study prior to its completion, you will receive credit only for the time you have spent in the study, but you will be provided with an alternative way of earning credit. You can be removed from the study for disruptive behavior. If you are removed from the study, you will not receive credit for your participation. Within one year of your participation, a copy of this consent form will be provided to you upon request.

I freely give permission for my participation in this study.

_____

Signature

Pre-test: Air Force Qualifying Test

DIRECTIONS: To help us determine whether or not you are qualified to perform the task, you are about to take a test that measures your general reasoning ability. Please choose the answer that best completes each analogy developed at the beginning of each question.

Please time yourself, and spend no more than 10 minutes answering the following 25 questions. If you complete all the questions before the allotted time has elapsed, you may go back over the test. When you have finished, click the SUBMIT button at the bottom of the page.

1. SAUCER is to COFFEE as TABLE is to

   a. cup
   b. leaf
   c. food
   d. chair
   e. kitchen

2. BASKETBALL is to HORSESHOES as BASKET is to

   a. horse
   b. toss
   c. shoe
   d. metal
   e. stake

3. FINALE is to SYMPHONY as HOME STRETCH is to

   a. race
   b. muscle
   c. sleep
   d. girdle
   e. concert

4. EXCITEMENT is to BOREDOM as PASSION is to

   a. nostalgia
   b. ignorance
   c. fatigue
   d. interest
   e. indifference

5. EDIBLE is to DELECTABLE as INTEREST is to

a. principal
b. concern
c. notice
d. apathetic
e. fascination

6. OFFENSE is to DEMERIT as ACHIEVEMENT is to

a. discipline
b. commendation
c. success
d. penalty
e. effort

7. WORK is to ERG as HEAT is to

a. fire
b. volt
c. electron
d. wave
e. calorie

8. WHO IS TO WHAT AS

a. TIME is to LOCATION
b. CAUSATION is to OCCURRENCE
c. MEANS is to PURPOSE
d. PLACE is to EXPLANATION
e. IDENTITY is to NATURE

9. EARLY is to WHEN as EASILY is to

a. which
b. hard
c. how
d. what
e. where

10. QUART is to LITER as INCH is to

a. kiloliter
b. kilogram
c. hectare
d. decimeter
e. decagram

11. SPOUT is to CUP as CHUTE is to

a. pour
b. shunt
c. bin
d. store
e. attic

12. VICTORY is to DEFEAT as COUP is to

a. fiasco
b. silence
c. c. effort
d. achievement
e. conquest

13. HONEST is to CHARACTER as CHEERFULNESS is

a. individual
b. personality
c. happiness
d. smile
e. peaceful

14. BREAK is to BRITTLE as STRETCH is to

a. rubber
b. pull
c. soft
d. muscle
e. elastic

15. ORACLE is to TEMPLE as JUSTICE is to

a. judge
b. jury
c. court
d. lawyer
e. congress

16. SPARSE is to DENSE as SCATTER is to

a. increase
b. tighten
c. concentrate
d. expand
e. flatten

17. CLOTH is to BOLT as YARN is to

a. lock
b. story
c. skein
d. spool
e. roll

18. BAR is to PRECLUDE as LEAD is to

a. conduce
b. avert
c. thwart
d. originate
e. hinder

19. JAIL is to ARREST as SCHOOL is to

a. graduate
b. student
c. learn
d. enrollment
e. attend

20. BOUGHT is to HAVE as SOLD is to

a. own
b. lose
c. give
d. get
e. lack

21. CANDID is to RETICENT as is to

a. LYING is to UNTRUTHFUL
b. FRANK is to RESERVED
c. BOASTING is to MODEST
d. OPEN is to SINCERE
e. RUDE is to IMPOLITE

22. BODY is to MIND as

a. HEART is to SOUL
b. FORM is to CHARACTER
c. ANIMAL is to HUMAN
d. PHYSICAL is to MENTAL
e. WORK is to LEISURE

23. ANSWER is to RETORT as

a. CONFER is to DISCUSS
b. QUARREL is to DISPUTE
c. CONVERSE is to ARGUE
d. RESPOND is to REPLY
e. GOSSIP is to PARLEY

24. LUXURY is to NECESSITY as

a. WASTE is to USE
b. ENJOYMENT is to REQUIREMENT
c. WANT is to POSSESSION
d. EXPENSE is to COST
e. VICE is to VIRTUE

25. GRASS is to LAWN as

a. STONE is to CEMENT
b. TREE is to ORCHARD
c. ROSE is to FLOWER
d. BUSH is to BERRY
e. GARDEN is to VEGETABLES

STOP! You have reached the end of the pre-test. If you have time remaining, you may review your answers, otherwise click "Submit" to continue.

ISC (Wood & Locke, 1989)

INSTRUCTIONS: The following scale will list a certain level of performance on each line. For each level of performance, you need to answer TWO questions:

(1) Whether or not you think you can perform at that specific level
(2) How confident you are about your ability to perform at each of these levels on a scale of 1 to 10, 1 being not at all confident and 10 being extremely confident.

HERE'S AN EXAMPLE TO CLARIFY THE ABOVE INSTRUCTIONS:

		YES OR NO	0-10
1.	I believe that I can run a mile in 15 minutes	yes	10
2.	I believe that I can run a mile in 10 minutes	yes	8
3.	I believe that I can run a mile in 8 minutes	yes	4
4.	I believe that I can run a mile in 5 minutes	no	2

Note that the above responses indicate that the person is extremely confident that he/she can run a mile in 15 minutes, but not very confident that he/she can run a mile in 5 minutes.

NOW, RESPOND TO THE FOLLOWING ITEMS:

		YES OR NO	0-10
1.	I am able to complete 1 schedule.	_____	_____
2.	I am able to complete 2 schedules.	_____	_____
3.	I am able to complete 3 schedules.	_____	_____
4.	I am able to complete 4 schedules.	_____	_____
5.	I am able to complete 5 schedules.	_____	_____
6.	I am able to complete 6 schedules.	_____	_____
7.	I am able to complete 7 schedules.	_____	_____
8.	I am able to complete 8 schedules.	_____	_____
9.	I am able to complete 9 schedules.	_____	_____
10.	I am able to complete 10 schedules.	_____	_____
11.	I am able to complete 11 schedules.	_____	_____
12.	I am able to complete 12 schedules.	_____	_____
13.	I am able to complete 13 schedules.	_____	_____
14.	I am able to complete 14 schedules.	_____	_____
15.	I am able to complete 15 schedules.	_____	_____
16.	I am able to complete 16 schedules.	_____	_____

ISC (Maurer & Pierce, 1998)

Please rate each of the following statements using this scale: 1 = Strongly disagree; 2= Moderately disagree; 3 = Neutral; 4=Moderately agree; 5=Strongly agree

1. I am able to complete 1 schedule.
2. I am able to complete 2 schedules.
3. I am able to complete 3 schedules.
4. I am able to complete 4 schedules.
5. I am able to complete 5 schedules.
6. I am able to complete 6 schedules.
7. I am able to complete 7 schedules.
8. I am able to complete 8 schedules.
9. I am able to complete 9 schedules.
10. I am able to complete 10 schedules.
11. I am able to complete 11 schedules.
12. I am able to complete 12 schedules.
13. I am able to complete 13 schedules.
14. I am able to complete 14 schedules.
15. I am able to complete 15 schedules.
16. I am able to complete 16 schedules.

ISC (Sacco, 1999)

Before taking the pre-test, please answer the following questions to describe how confident you are in your ability to perform the necessary duties of this leadership (secretarial) position.

1. I am confident that I could deal efficiently with the duties of this position.
2. I know how to handle this task
3. I can cope with any difficulties that might arise with this task
4. I am confident I can do this task well.
5. I feel secure about my ability to perform this task.
6. I am capable of dealing with most problems that come up in this type of task.
7. I can meet the challenges of this task.
8. I can deal with decisions in this task.
9. I am certain that I can manage the requirements of this task.
10. I believe I will fare well in this task.
11. I am confident that I can cope with this task.
12. I believe I can develop methods to handle of this task.
13. I believe I can do well on this task even if it is difficult.
14. Even if I have initial difficulty with this task, I will do well in the end.
15. I am confident that I will perform at least an average level on this task.
16. I know that I will not perform below average on this task.
17. I do not expect to find this material difficult.

Performance

Introduction

The organization for which you work is under construction so space is currently very limited, and all employees must share one conference room.

As the (manager) (secretary), it is your responsibility to come up with as many non-redundant *conference room schedules* as possible. We need several schedules because the construction will be going on for a few weeks and only one meeting can occur at a time. This task is very important because the organization does not want to lose business and therefore needs to be ready to accommodate several clients' schedules.

Instructions

The names of twelve employees are listed below, each with ten possible appointment times (each with a different code), and blank schedules.

In completing these schedules, use the following rules:

(1) A completed schedule will include the employee code and the appointment code.

(2) Each schedule must have 5 different employees scheduled on the same day. The organization wants to make maximum use of the room so as not to experience a drop in productivity.

(3) Each schedule must be unique – it cannot duplicate another schedule otherwise conflicts will occur.

(4) Employees in the research and development department have committee meetings and they have special task force meetings as well. These meetings that must be linked together to ensure maximum coordination between these two groups. Therefore, when you see "committee meeting" and "task force meeting," those meetings have to occur on the same day.

(5) No two employees from the finance department can be scheduled within one hour of each other because of a personnel shortage that requires coverage in the department.

(6) Note that Phil (an executive) must always have two meetings scheduled on the same day because he only works a few days a week.

An example of a correct schedule is:

EMPLOYEE NAME	EMPLOYEE CODE	TIME	TIME CODE
Kerry	K906	W 8:00-9:20 AM	A
Anita	A862	W 9:30-10:50 AM	B
General committee	GC860	W 11:00-11:50 PM	D
Fred	F862	W 12:00-12:50 PM	E
Janine	J864	W 1:00-1:50 PM	F

There are 5 different employees, all the meetings are on the same day, the meeting times do not conflict; this schedule meets all of the six criteria.

An example of an incorrect schedule is:

EMPLOYEE NAME	EMPLOYEE CODE	TIME	TIME CODE
Brad	B864	M 8:00-9:20 AM	A
Janine	J864	M 9:00-9:50 AM	B
Anita	A862	W 9:30-10:50 AM	B
Fred	F862	M 10:00-10:50 AM	C
General committee	GC860	W 11:00-11:50 AM	D

This schedule is incorrect for at least three reasons:

(1) There are conflicts in meeting times (e.g., Brad and Janine, and Anita and Fred)

EXECUTIVES

EMPLOYEE NAME	*EMPLOYEE CODE*	*AVAILABLE TIMES*	*TIME CODE*
Kerry	K906	MW 8:00-9:20 AM	A
		MW 9:30-10:50 AM	B
		MW 11:00-12:30 PM	C
		MW 1:30-2:50 PM	D
		MW 3:00-4:20 PM	E
		TTh 9:00-10:20 AM	F
		TTh 10:30-11:40 AM	G
		TTh 12:00-1:20 PM	H
		TTh 1:30-2:50 PM	I
		T 6:00-8:40 PM	J
Phil (set a)	P906a	M 8:00-9:50 AM	A
		T 1:00-2:50 PM	B
		W 8:00-9:50 AM	C
		Th 1:00-2:50 PM	D
Phil (set 2b)	P906b	M 8:00-9:50 AM	E
		M 9:00-10:50 AM	F
		M 10:00-10:50 AM	G
		T 8:00-8:50 AM	H
		T 9:00-9:50 AM	I
		T 10:00-10:50 AM	J
		F 8:00-8:50 AM	K
		F 9:00-9:50 AM	L
		F 10:00-10:50 AM	M
		F 11:00-11:50 AM	N
Carrie	C906	MWF 8:00-8:50 AM	A
		MWF 9:00-9:50 AM	B
		MWF 10:00-10:50 AM	C
		MWF 11:00-11:50 AM	D
		MWF 12:00-12:50 PM	E
		MWF 1:00-1:50 PM	F
		MWF 2:00-2:50 PM	G
		MWF 3:00-3:50 PM	H
		MWF 4:00-4:50 PM	I
		W 6:00-8:40 PM	J

RESEARCH & DEVELOPMENT

EMPLOYEE NAME	*EMPLOYEE CODE*	*AVAILABLE TIMES*	*TIME CODE*
Products task force	PRTF860	MW 9:00-10:20 AM	A
		MW 10:30-11:50 AM	B
		MW 1:00-2:20 PM	C
		MW 2:30-3:50 PM	D
		TTh 9:30-10:50 AM	E
		TTh 11:00-12:30 PM	F
		TTh 12:30-1:50 PM	G
		TTh 2:00-3:20 PM	H
		TTh 4:00-5:20 PM	I
		T 6:00-8:40 PM	J
Products committee	PRC860	M 9:00-9:50 AM	K
		M 1:00-1:50 PM	L
		T 9:00-9:50 AM	M
		T 1:00-1:50 PM	N
Placement task force	PMTF860	MW 8:00-9:20 AM	A
		MW 9:30-10:50 AM	B
		MW 11:00-12:20 PM	C
		MW 12:30-1:50 PM	D
		MW 2:00-3:20 PM	E
		MW 3:30-4:50 PM	F
		TTh 9:30-10:50 AM	G
		TTh 11:00-12:20 PM	H
		TTh 12:30-1:50 PM	I
		TTh 2:00-3:20 PM	J
Placement committee	PMC860	W 9:00-9:50 AM	K
		W 1:00-1:50 PM	L
		Th 9:00-9:50 AM	M
		Th 1:00-1:50 PM	N
General committee (no task force)	GC860	MWF 8:00-8:50 AM	A
		MWF 9:00-9:50 AM	B
		MWF 10:00-10:50 AM	C
		MWF 11:00-11:50 AM	D
		MWF 12:00-12:50 PM	E
		MWF 1:00-1:50 PM	F
		MWF 2:00-2:50 PM	G
		MWF 3:00-3:50 PM	H
		MWF 4:00-4:50 PM	I
		M 6:00-8:40 PM	J

ACCOUNTING & FINANCE

EMPLOYEE NAME	*EMPLOYEE CODE*	*AVAILABLE TIMES*	*TIME CODE*
Greg	G862	MW 8:00-9:50 AM	A
		MW 10:30-12:20 PM	B
		MW 1:00-2:50 PM	C
		MW 3:00-4:50 PM	D
		TTh 8:00-9:50 AM	E
		TTh 10:30-12:20 PM	F
		TTh 12:30-2:20 PM	G
		TTh 2:30-4:20 PM	H
		F 8:00-11:20 AM	I
		F 12:00-3:20 PM	J
Anita	A862	MW 8:00-9:20 AM	A
		MW 9:30-10:50 AM	B
		MW 11:00-12:20 PM	C
		MW 12:30-1:50 PM	D
		MW 2:00-3:20 PM	E
		TTh 9:00-10:20 AM	F
		TTh 10:30-11:50 AM	G
		TTh 12:00-1:20 PM	H
		TTh 1:30-2:50 PM	I
		Th 6:00-8:30 PM	J
Fred	F862	MWF 8:00-8:50 AM	A
		MWF 9:00-9:50 AM	B
		MWF 10:00-10:50 AM	C
		MWF 11:00-11:50 AM	D
		MWF 12:00-12:50 PM	E
		MWF 1:00-1:50 PM	F
		MWF 2:00-2:50 PM	G
		MWF 3:00-3:50 PM	H
		MWF 4:00-4:50 PM	I
		W 6:00-8:30 PM	J

MARKETING

EMPLOYEE NAME	*EMPLOYEE CODE*	*AVAILABLE TIMES*	*TIME CODE*
Matt	M864	MW 8:00-9:20 AM	A
		MW 9:30-10:50 AM	B
		MW 11:00-12:20 PM	C
		MW 12:30-1:50 PM	D
		MW 2:00-3:20 PM	E
		TTh 8:00-9:20 AM	F
		TTh 9:30-10:50 AM	G
		TTh 11:00-12:20 PM	H
		TTh 12:30-1:50 PM	I
		TTh 2:00-3:20 PM	J
Brad	B864	MW 8:00-9:20 AM	A
		MW 9:30-10:50 AM	B
		MW 11:00-12:20 PM	C
		M 6:00-8:40 PM	D
		TTh 8:00-9:20 AM	E
		TTh 9:30-10:50 AM	F
		TTh 11:00-12:20 PM	G
		TTh 1:00-2:20 PM	H
		T 2:30-3:50 PM	I
		T 4:00-5:20 PM	J
Janine	J864	MWF 8:00-8:50 AM	A
		MWF 9:00-9:50 AM	B
		MWF 10:00-10:50 AM	C
		MWF 11:00-11:50 AM	D
		MWF 12:00-12:50 PM	E
		MWF 1:00-1:50 PM	F
		MWF 2:00-2:50 PM	G
		MWF 3:00-3:50 PM	H
		MWF 4:00-4:50 PM	I
		M 6:00-8:30 PM	J

Self-evaluation of performance

1. I performed well on this task.
2. My performance on this task was probably above average.
3. I think I did poorly on this task.

Procedural fairness measure

1. Whether or not I get selected for this job, I feel the selection process was fair.
2. Whether or not I get selected for the job, I am satisfied with the selection process.
3. Overall, I feel dissatisfied with the way people will be selected for the job.

Manipulation checks

1. The senior executive (secretarial) position is a "male" position.
2. The senior executive (secretarial) position is a more "female" position.
3. I see the senior executive (secretarial) position as a "man's job."
4. I see the senior executive (secretarial) position as a "woman's job."
5. I was selected for the position on the basis of my abilities
6. I was selected for the position on the basis of my gender.

Debriefing

A recent "hot topic" in the media and in psychology research is Affirmative Action and whether or not it's fair to the individuals who benefit from it. One of the topics of interest in this area is the issue of "procedural justice," which describes the extent to which the employee thought that a certain procedure (that was meant to bring about a certain outcome) is fair. An employee's perception of distributive justice is the extent to which the employee thought that the outcome was fair.

In this experiment, we examined one particular type of employment procedure and decision - hiring decisions. Specifically, we examined your reactions to two different kinds of selection procedures. Before explaining these procedures, it is important that you know that the pre-test was never scored and all participants were "hired." Half of you were told you were hired on the basis of the pre-test, and half of you were told you were hired on the basis of your gender.

This research has considerable implications in the workplace. It has been shown that perceptions of fairness influence an individual's motivation and satisfaction. If these perceptions can change just depending on the type of explanation an employer provides for its actions, this information will be useful in contribute to a more satisfying and productive workplace.

If you have any questions, feel free to contact us, and thank you for participating in this experiment.

Jennifer Z. Carr (432-7752)
Dr. Ann Marie Ryan (353-8857)

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