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AN EXAMINATION OF THE RELATIONSHIPS AMONG
PERCEIVED GENDER DISCRIMINATION, WORK MOTIVATION,
AND PERFORMANCE

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
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ABSTRACT

Gender discrimination and work motivation are two important constructs for employers to consider. Changing workforce trends towards a more diverse workforce make understanding discrimination in the workplace more important than ever. And, established direct relationships between motivation and performance make understanding motivation key to organizational success. The purpose of this study was to examine the relationships among perceived gender discrimination at work, work motivation, and performance. Although much theory and research exists regarding motivation and performance, this study uses a new measure of motivation based on the Pritchard and Ashwood (2007) theory of work motivation.

It was hypothesized that perceived gender discrimination would be negatively related to motivation, and that motivation would be positively related to performance. It was further hypothesized that motivation would mediate the relationship between perceived discrimination and performance. Consistent with social identity and attribution theory, gender identification was examined as a moderator of the relationship between perceived discrimination and motivation. Additionally, race and locus of control were examined as moderators of this same relationship.

Measures of study variables were surveys administered on-line to 170 female undergraduate students. Upon completion of this part of the study, participants were emailed a link for their supervisors to complete on-line measures of participants' overall motivation and performance at work.

Results indicated that both overall motivation and action-to-result motivation connections were negatively related to perceived gender discrimination. However, other motivation connections were not related to this discrimination. Furthermore, overall motivation and the

motivation connections had strong relationships with performance. Despite the practical significance of these relationships, they did not reach statistical significance because of the small sample size of supervisor performance ratings ($n = 37$). Neither race, work locus of control, or gender identification significantly moderated hypothesized relationships. Additionally, there was no significant relationship between discrimination and performance, and so work motivation could not mediate this relationship. Reasons for non-significant results are discussed, as are implications for theory and practice. Although moderator hypotheses were not supported, this research represents an important step in discrimination research because it examines the possible influence of perceived discrimination on those who are impacted by it. This study also reaffirms the relationship between motivation and performance using Pritchard and Ashwood's (2007) theory of motivation.

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LIST OF ACRONYMS/ABBREVIATIONS

ART	Aversive Racism Theory
CMV	Common Method Variance
CRA	Civil Rights Act
EEOC	Equal Employment Opportunity Commission
MAQ	Motivation Analysis Questionnaire
MRT	Modern Racism Theory
NPI theory	Naylor, Pritchard, and Ilgen's theory of behavior in organizations
ProMES	Productivity Measurement and Enhancement System
RCT	Realistic Group Conflict Theory
SIT	Social Identity Theory
VIE theory	Valence-Instrumentality-Expectancy theory
WLCS	Spector's (1988) Work Locus of Control Scale

CHAPTER ONE: INTRODUCTION

Demographics are changing within the U.S. workforce, and clear trends are emerging. Although “historically, the typical American worker has been a White man with a high school education employed in manufacturing job” (Muchinsky, 2001, p. 387), today the typical American worker is increasingly employed in service-oriented jobs. Furthermore, the U.S. “workforce [is becoming] older, more diverse and more female (Offerman & Gowing, 1990)” (2001, p. 387-388; see also Wilson, 2005; Hogan, Curphy, & Hogan, 1994). Given these demographic trends, employers need to be prepared to address the issues of gender, racial, and age discrimination.

Employment discrimination has been an important business issue since the passage of the Civil Rights Act of 1964. Title VII of this act “prohibits employment discrimination on the basis of ‘race, color, religion, sex, or national origin’ by employers, labor organizations, and employment agencies” (Rothstein et al., 1994, p. 63). The passage of this law gave employees recourse in the face of employment discrimination. In fact, the number of class-action discrimination lawsuits brought against U. S. organizations is increasing, and rose more than 100% in 2003 (Frank, 2002; ICM, 2004; as cited in James, 2006).

In addition to the obvious ethical motivation for employers to eliminate discriminatory practices, there are also monetary, bottom-line motivations for the company. Monetary costs can be directly associated with defending the organization in a lawsuit. Or, monetary costs can be indirect such as trickle-down effects that affect a company’s bottom-line when its reputation is harmed. Studies conducted by James and Wooten (James, 2006; James & Wooten, 2005; Wooten & James, 2004) provide evidence of such indirect costs. These authors demonstrated that lawsuits can “threaten a firm’s reputation, impede its ability to attract a talented workforce,

adversely affect employee morale and commitment, and increase the likelihood of recurring claims of discrimination (James & Wooten, 2005; Wooten & James, 2004)” (James, 2006, p. 8). These authors also demonstrated that how a company responds to a lawsuit could harm its reputation, its recruiting, and its employees’ morale and commitment. This potential damage to a company’s reputation and financial performance provides even more motivation for an organization to care about diversity and discrimination within its walls.

Although employers have recognized the impact of a changing workforce and the consequences of employment discrimination, social and industrial/organizational psychology research is lagging behind. Unjustified differences between majority and minority groups receive considerable research attention, and researchers frequently examine the reasons why people discriminate. But, the impact of perceived discrimination on its victims has received only minimal consideration. There is a clear need for industrial-organizational psychologists to shift their thinking and consider the entire picture of discrimination. That is, examinations of differences between majority and minority groups and studies about why people discriminate only consider half of the equation. Of equal importance is what happens *after* discrimination takes place.

Study Objectives

In the current study I attempt to fill the gap in employment discrimination research by addressing how being a victim of discrimination is related to two variables important to organizations: employee motivation and performance. Specifically, this study examines the relationship between females’ perceptions of gender discrimination and their motivation at work.

To date I can find only one study that examined the relationship between experiencing discrimination and work motivation (Blaine, Crocker, & Major, 1995).

Additionally, I examine the relationship between work motivation and performance. Although much theory and research exists regarding motivation and performance, in this study I use a new measure of motivation based on the Pritchard and Ashwood (2007) theory of behavior in organizations. This is significant because often motivation is not actually measured; instead performance is used as a proxy measure of motivation. In other words, researchers often assume that motivation translates directly into performance and so if performance is high then it is inferred that motivation is high and vice versa. Rather than making this assumption I separately measure work motivation and performance

In this paper I begin by discussing some major theories of motivation before presenting the motivation theory that is the foundation of my hypotheses. Next I shift to a discussion of some well-supported theories pertaining to discrimination. These theories include aversive racism theory, modern racism theory, realistic group conflict theory, attribution theory, and social identity theory. I also discuss two competing perspectives stemming from social identity theory. These perspectives, the discounting perspective and the rejection-identification perspective, are of great significance to the current study because the results of research supporting these perspectives establish the logic for my hypotheses and for my selection of moderating variables. Specifically, the moderating variables are in-group identification and historical disadvantage. Next, one final moderating variable is discussed: locus of control. And finally, before hypotheses are presented I discuss the performance construct and present related research.

CHAPTER TWO: LITERATURE REVIEW

Motivation

The generally accepted definition of motivation was put forth by Pinder (1998): “*Work motivation* is a set of energetic forces that originates both within as well as beyond an individual’s being, to initiate work-related behavior, and to determine its form, direction, intensity, and duration” (p. 11). Some other generally accepted properties of the motivation construct include the notion that motivation varies within and across individuals, that it combines with ability to produce behavior and performance, and that it is voluntary or “something that one chooses to expend” (Mitchell & Daniels, 2003, p. 225-226). Furthermore, motivation is considered to be both a hypothetical construct and an internal set of processes (Mitchell & Daniels, 2003; Pinder, 1998). As such, motivation is not behavior. Rather, “the psychological state is motivation; the outcome or result of that state is behavioral (e.g., effort)” (Mitchell & Daniels, 2003, p. 227).

Theories of Motivation

Over time, many theories of motivation have been developed and researched. Each separate review of these theories organizes or clusters them in a different and separate way. Here, theories are categorized roughly as Pinder (1998) did, as need, motive, and values theories; cognitive choice theories; and self-regulation theories. Each of these categorizes subsumes a number of theories. However, I discuss only a few dominant theories under each heading.

Need, Motive, and Values Theories

The conceptualization of motivation among theories that fall under this category is as a completely internal process, although the environment may induce the process. Motivation is viewed as driven by the desire to fulfill one's needs and focus on individual differences in personality, stable traits, and values. Examples include Maslow's (1943) need hierarchy theory, Deci's (1971, 1975) cognitive evaluation theory, Hackman and colleagues' (Hackman & Lawler, 1971; Hackman & Oldham, 1980) job characteristics model, McClelland's (1961) achievement motivation, and Adams' (1963, 1965) equity theory. Deci's cognitive evaluation theory and Adams' equity theory will be discussed next because these two theories are considered dominant theories of motivation (Donovan, 2001; Mitchell & Daniels, 2003).

Deci's (1971, 1975) Cognitive Evaluation Theory

Cognitive evaluation theory (CET) was formed in response to research showing a detrimental effect of external rewards on intrinsic motivation, contrary to the predictions made by expectancy theories (Donovan, 2001; Pinder, 1998). CET suggests that rewards impact intrinsic motivation only to the extent that they satisfy or frustrate two higher-order needs: competence and self-determination (2001). Therefore increasing the strength of these two mediating needs should increase intrinsic motivation. Deci (1971, 1975) suggested that environmental factors (e.g., positive performance feedback, recognition, choice) can also increase intrinsic motivation, but again only through competence and self-determination needs. Furthermore, a host of factors were hypothesized to decrease intrinsic motivation, such as performance-contingent rewards, negative feedback, threats, deadlines, directives, and competition (2001).

According to a review by Donovan (2001), early research demonstrated strong support for the effects of rewards on intrinsic motivation, but later research produced less consistent results. Furthermore, research has had methodological problems, especially surrounding the operationalization of intrinsic motivation. And, Donovan (2001) provides research examples that suggest limited applicability of CET to the workplace. For example, CET propositions only apply when initial intrinsic interest in the task is high. But many parts of one's daily job are not intrinsically interesting; rather they are redundant and unchallenging. And Donovan's arguably strongest criticism is that CET is constantly changing and undergoing modifications such that seemingly contradictory findings can all be taken as support for the theory, rendering it untestable.

Adams' (1963, 1965) Equity Theory

According to equity theory, motivation stems from one's *equity ratio*, or the ratio of what one puts into an organization to what one gets out of the organization. Equity theory suggests that people are motivated to achieve both an equal, one-to-one ratio and a ratio that is equal to someone else's ratio (Donovan, 2001; Pinder, 1998). That is, a major part of equity theory is the social comparison process. Individuals compare their equity ratio to a *referent* other's or a hypothetical *ideal* other's equity ratio. Equal ratios between oneself and one's referent other mean that this person feels that their exchange with their organization is fair, resulting in feelings of satisfaction (Donovan, 2001; Pinder, 1998). Unequal ratios result in "a state of tension within the individual," which motivates that individual "to engage in various cognitive or behavioral measures" to reduce the perceived inequity (2001, p. 54; see also Bartol & Durham, 2000; Pinder, 1998). Possible cognitive or behavioral measures include altering one's perceived inputs or outcomes in

one's own equity ratio, altering the perceived inputs or outcomes in one's referent other's equity ratio, changing one's referent other, cognitively reevaluating one's own or one's referent other's inputs or outcomes (i.e., alter the value placed on the inputs or outcomes), or leaving the field (Bartol & Durham, 2000; Donovan, 2001).

Donovan (2001) suggests that research does not consistently support equity theory. But, a consistent finding emerges regarding compensation. Equity theory predicts that in a situation of overpayment (one's inputs are less than the organization's outputs) a person will be motivated to reduce the inequity and therefore increase their inputs. But research finds that in situations of overpayment people are unlikely to try to fix the inequity (Bartol & Durham, 2000). Although overpayment situations do not support equity theory, a series of field studies by Greenberg (1988, 1989, 1990, 1993) do provide support for equity theory. For example, he showed that an employee does alter the value he or she places on a received outcome in his or her equity ratio (Greenberg, 1989, as cited in Pinder, 1998). Greenberg (1990, 1993) also demonstrated that when employees perceived inequity, one response they had was to steal from their company (Pinder, 1998). However, most research is inconsistent in its support for equity theory (Bartol & Durham; Donovan, 2001; Pritchard, 1969).

Three common criticisms of equity theory are that 1) it is of limited predictive utility because of an inability to make specific predictions about equity-restoring behaviors, 2) it neglects individual difference variables, thereby creating an overly simplistic view of motivation, and 3) there is much ambiguity surrounding referent others, such as how they are chosen and how many are chosen (Donovan, 2001; Pinder, 1998; Pritchard, 1969).

Self-Regulation/Meta-cognitive Theories

Theories included here focus on intentions and the motivational processes underlying goal-directed behavior, including Locke's (1968) popular goal-setting theory. Other theories falling under this heading include control theories (Carver, 1979; Carver & Scheier, 1982, 1990), Fishbein and Ajzen's (1975) theory of planned behavior, and Bandura's (1977) social learning theory.

Locke's (1968) Goal Setting Theory

This theory is frequently referred to as one of the most well-supported theories in industrial-organizational psychology (Bartol & Durham, 2000; Cascio, 1998; Donovan, 2001; Mitchell & Daniels, 2003; Pinder, 1998). "Goal-setting is based on the idea that most of human behavior is the result of a person's consciously chosen goals and intentions" (Mitchell & Daniels, 2003, p. 231). Its main proposition is that how well one performs a task will be determined by the performance goals they hold for that task (Donovan, 2001). One of the most robust research findings is that difficult, specific goals result in higher levels of performance than vague, "do-your-best" goals (Cascio, 1998; Donovan, 2001; Mitchell & Daniels, 2003). Researchers have shown that difficult, specific goals affect behavior by directing attention, mobilizing on-task effort, encouraging task persistence, and facilitating the development of strategies (Donovan, 2001; Mitchell & Daniels, 2003; Pinder, 1998). Researchers have also identified some variables that moderate the goal difficulty-task performance relationship including: goal acceptance and commitment, the presence of performance-relevant feedback, and the possession of some minimum, requisite level of task-related ability (Cascio, 1998; Donovan, 2001; Mitchell & Daniels, 2003; Pinder, 1998). More recent research has

focused on factors that determine which goals an individual will choose and the difficulty of chosen goals (Cascio, 1998; Donovan, 2001; Mitchell & Daniels, 2003).

Despite its widespread support, at least two main problems with goal-setting theory exist (Donovan, 2001; Pinder, 1998). The first is its solitary focus on task performance; the theory is unable to predict or explain other work-related behaviors. By focusing on task performance the theory focuses on quantity goals, thereby neglecting the impact of conflicting quality and quantity goals. The second main criticism is that goal-setting theory takes a static approach to describing motivation. In other words, it predicts or explains behavior within a single performance episode, not over the course of multiple episodes. “That is, much of goal setting theory focuses on the impact of performance goals on immediate task performance with little regard for how such goals are likely to be maintained or revised in response to relevant performance feedback” (Donovan, 2001, p. 63). Despite these criticisms, this theory is still one of the most straightforward, well-accepted, and empirically supported theories of motivation today.

Cognitive Choice Theories

These theories view the source of motivation as trying to maximize desired outcomes. These theories focus on cognitive processes in decision-making and choice. Examples include expectancy theories such as Vroom’s (1964) VIE theory and Naylor, Pritchard, and Ilgen’s (1980) theory of motivation (both discussed below), and Weiner’s (1985) attribution theory.

Vroom's (1964) VIE Theory

Expectancy theories hypothesize that behavior results from consciously choosing among alternative courses of action, and the course chosen will be the one that maximizes pleasure and minimizes pain (Pinder, 1998). The most popular expectancy theory is Vroom's (1964) valence-instrumentality-expectancy (VIE) model. It assumes that "people's behavior results from conscious choices among alternatives, and these choices (behaviors) are systematically related to psychological processes, particularly perception and the formation of beliefs of attitudes" (Pinder, 1998, p. 338). Therefore, the components of the theory (valence, expectancy, and instrumentality) are each beliefs. Expectancy is one's belief that a given act or behavior will result in outcomes such as job performance. Instrumentality is one's belief that these first-level outcomes (i.e., job performance) will result in second-level outcomes or rewards (e.g., pay, promotions, satisfaction). And valence refers to how much one values this second set of outcomes (Donovan, 2001; Pinder, 1998).

Vroom's theory posits that outcome valence, instrumentality, and expectancy combine to produce a motivational force. This motivational force is a hypothetical construct that Pinder (1998) describes as: "the strength of a person's intention to act in a certain way" (p. 346). VIE theory suggests that an individual chooses the course of action or alternative that exerts the greatest amount of positive motivational force (or weakest amount of negative force; Pinder, 1998). "Thus, individuals will engage in behaviors that are likely to lead to valued outcomes, provided they perceive that they can successfully produce such behaviors" (Donovan, 2001, p. 56).

According to Donovan (2001), research addressing VIE theory has not generated an impressive amount of support and the validity of the theory is therefore still in question. However, Mitchell & Daniels (2003) suggest that this theory has received fairly good research support. Pinder appears to fall somewhere in between, noting: “In their 1976 review, J. P. Campbell and Pritchard identified 12 common problems in the many studies conducted to that time. In the two decades since then, some of these have been seemingly resolved, others have not” (1998, p. 351). Bartol & Durham (2000) agree that while early research was not supportive of VIE theory, later studies paid attention to methodological flaws and provided more support.

Many modifications have been made to Vroom’s original VIE theory, including the Porter-Lawler model and Naylor, Pritchard, and Ilgen’s theory of behavior in organizations (Pinder, 1998). This latter theory, updated by Pritchard and Ashwood (2007), guides the theory for the hypotheses and measures used in the present study, and is discussed next.

Pritchard and Ashwood’s (2007) Theory of Motivation

The theory of motivation used in the current study is the expectancy theory originally developed by Naylor, Pritchard, and Ilgen (1980; NPI theory) and later updated by Pritchard and Ashwood (2007). The updated theory posits that motivation is the process of applying one’s energy to actions in order to meet one’s needs (see Figure 1). In other words, individuals are motivated by the expectancy of how their actions will lead to their needs being satisfied. However, unlike earlier expectancy theories, Pritchard and Ashwood’s (2007) theory posits four connections that link effort to need satisfaction.

Early expectancy theories, including that put forth by Lawler (1968, 1971), specified two levels of expectancies. The first referred to the connection between one's effort and performance, while the second referred to the connection between one's performance and rewards or outcomes (Pinder, 1998). To the extent that both of these connections are high, one should have high motivation. In contrast, NPI theory specifies a more detailed series of connections that, when high, are hypothesized to result in high motivation.

One important update made to NPI theory by Pritchard and Ashwood (2007) is the assumption that individuals have a finite bank of some amount of energy. This energy can be used to satisfy needs such as the need for food, shelter, achievement, and social acceptance. Given this bank of energy, motivation is the process that determines how this energy is allocated to satisfy needs. Motivation will be high when all of the relationships that make up the motivation process (see Figure 1) are high. In other words, motivation will be high when one can allocate energy to actions, these actions lead to results, more or better results lead to more positive evaluations, and the evaluations are the basis for valuable outcomes that satisfy one's needs.

There are five components that make up the four connections in the motivation theory. *Actions* are the behaviors that a person engages in, such as typing, thinking, driving a truck, or hammering. Actions can be thought of as verbs or as "doing." Together, actions produce *results*. Therefore typing and thinking produce a journal article (the result). Next, results are evaluated. Evaluations can be *formal* such as a performance review from a supervisor or journal reviewer. Evaluations can also be *informal* evaluations from, e.g., coworkers, or can be *self*-evaluations of one's own results.

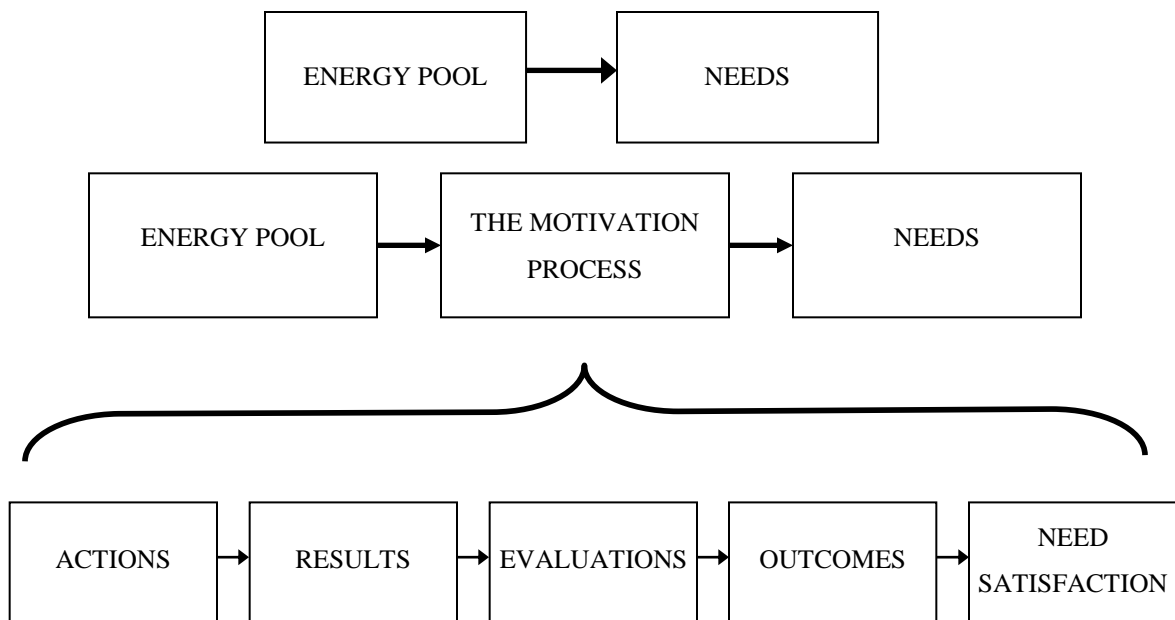


Figure 1: Pritchard and Ashwood's (2007) Theory of Motivation

Outcomes are then given based on evaluations. Examples of positive outcomes include pay, promotions, friendships, and feelings of accomplishment. Examples of negative outcomes are reprimands, being fired, being isolated by coworkers, and feelings of failure.

Finally, outcomes will determine one's *need satisfaction*. Needs to be satisfied might be food and shelter, need for achievement, and need for affiliation.

These five components—actions, results, evaluations, outcomes, and need satisfaction—form four contingencies or connections: action-to-result, result-to-evaluation, evaluation-to-outcome, and outcome-to-need satisfaction. Again, Pritchard and Ashwood (2007) suggest that motivation will be high when these four connections are all high. Pritchard and Ashwood further suggest that motivation will be limited by the

lowest connection. In other words, the five components form a motivational chain, and motivation will be limited by the weakest link in the chain.

Another update made to NPI theory by Pritchard and Ashwood (2007) is the addition of determinants. Each connection specified above has determinants that influence the strength of the connection (see Appendix A for the full model with a list of determinants). For example, *action-to-result* connections include such determinants as ability, training, work strategies, authority, and tools and equipment. So, whether one expects his or her action to produce a result depends in part on their ability, the training they have received, the work strategies they have adopted, and so on.

Examples of determinants of *result-to-evaluation* connections are being evaluated on things you can control, receiving evaluations frequently enough, and receiving evaluations in a timely manner. Examples of determinants of *evaluation-to-outcome* connections include awareness of possible outcomes and consistency of outcomes across individuals. And finally, determinants of *outcome-to-need satisfaction* connections include awareness of possible outcomes and satisfaction with available outcomes. According to Pritchard and Ashwood (2007), when a specific connection is thought to be low and therefore limiting motivation one can examine the determinants of that connection to discover why it might be low.

Support has been provided for NPI theory and Pritchard and Ashwood's (2007) updated version via tests of proposed connections (Lee, 1989; Roch, 1997; Sawyer, Latham, Pritchard, & Bennett, 1999). Additional indirect support for this theory is provided by research demonstrating the effectiveness of the Productivity Measurement and Enhancement System, or ProMES, a productivity intervention founded on Pritchard

and Ashwood's update of NPI theory. This intervention relies on feedback to motivate employees and increase productivity. Field research has demonstrated strong support for ProMES (Pritchard, 1990, 1995; Pritchard, Jones, Roth, Steubing, & Ekeberg, 1988; 1989), with an average sample size weighted effect size of 1.44 (Pritchard et al., 2006), which is an extremely large effect size by conventional standards (Nunnally & Bernstein, 1994).

Motivation is a widely studied topic, and there is little if any dispute that it is important for an organization to have a motivated workforce. However, the present study does not focus solely on workers' motivation; rather, it focuses on the relationship between motivation and perceived discrimination. Therefore literature, theories, and research relating to discrimination in the workplace will be discussed next.

Discrimination

Prejudice, stereotyping, and discrimination are closely related constructs. In general, the differences among these are that a prejudice is an attitude, a stereotype is a set of beliefs, and discrimination is behavior. As psychologists have studied these constructs for many decades, each has been defined in a variety of ways. However, the general connotation associated with each of these constructs is negative. For example, a prejudice is not ordinarily considered to be *any* attitude or a *positive* attitude, but is specifically defined as a *negative* attitude. For example, Ashmore (1970) defines prejudice as "a negative attitude toward a socially defined group and any person perceived to be a member of that group" (p.253, as cited in Dovidio et al., 1996).

Stereotypes are defined somewhat more positively in that theories do not suggest that the purpose or goal of stereotyping is always negative. In fact, early

conceptualizations considered them to be “overgeneralizations resulting from irrational processes” (Dovidio et al., 1996, p. 279), and/or a set of beliefs “characterized by inordinate rigidity and resistance to change” (p. 279). Today, there is a general consensus that stereotypes are cognitive schemas (Dovidio et al., 1996) and are a form of cognitive shortcuts used to eliminate the mental effort required to process information about every individual one encounters. People hold a stereotype about a particular group, and rely on these when they encounter and evaluate an individual member of this group (Dipboye & Halverson, 2004). In this vein, Hamilton and Trolie (1986) conceptualize stereotypes as “cognitive categories that are used by the social perceiver to process information about people” (p. 128, as cited in Dovidio et al., 1996).

Like the prejudice and stereotyping constructs, there are several definitions of discrimination. And, as with definitions of prejudice, definitions of discrimination tend to be negative in connotation. For example, Jones (1972) defined discrimination as “those actions designed to maintain own-group characteristics and favored position at the expense of the comparison group” (p. 4, as cited in Dovidio et al., 1996). Allport (1954) broadly defined discrimination as behavior that involves denying “individuals or groups of people equality of treatment which they may wish” (p. 51, as cited in Dovidio et al., 1996). Referring specifically to discrimination in the context of the workplace, Cotter, Hermsen, Ovadia, and Vanneman (2001) focused on inequalities that represent “a gender or racial difference that is not explained by other job-relevant characteristics of the employee” (p. 657).

For the purposes of this study, which examines discrimination in the workplace, the definitions given by Allport (1954) and Cotter et al. (2001) will be combined.

Therefore, discrimination is defined here as any behavior that denies individuals or groups equality of treatment such that the result is a gender or racial difference that is not explained by other job-relevant characteristics of the employee.

Theories of Prejudice, Stereotyping, and Discrimination

Two important aspects of prejudice are racism and sexism. In the past, these were revealed in an overt form. Racist and sexist attitudes, beliefs, and behaviors were open and obvious, and those holding these negative attitudes and beliefs were conscious of their feelings (Eberhardt & Fiske, 1996). But, it is widely recognized and documented that these traditional or “old-fashioned” forms of sexism and racism are no longer considered socially acceptable by modern society (e.g., Eberhardt & Fiske, 1996; Ziegert & Hanges, 2005). Yet prejudice and discrimination are still problems that exist today. Therefore theorists have begun to study subtler forms of stereotyping, prejudice, and discrimination. Two main theories that attempt to explain these subtle forms of discrimination are briefly described next. These are Gaertner & Dovidio’s (1986) aversive racism theory and McConahay’s (1986) modern racism theory. Also discussed are three theories from social psychology that have been significant in shaping conceptualizations of and research about stereotyping and discrimination (Mackie, Hamilton, Susskind, & Rosselli, 1996). These are Sherif’s (1966) realistic group conflict theory, Weiner’s (1985) attribution theory, and Tajfel and Turner’s (1986) social identity theory.

Aversive Racism Theory

Gaertner & Dovidio's (1986) aversive racism theory (ART) addresses more covert or subtle forms of prejudice and discrimination. ART suggests that White Americans hold strong egalitarian beliefs and view themselves as non-prejudiced. As such, there is a discrepancy between their conscious beliefs (egalitarian values) and unconscious, negative racial stereotypes (beliefs) that have been ingrained in them by American society (Dovidio et al., 1996; Fiske, 2000; Wolfe & Spencer, 1996). This theory therefore focuses on the discrepancy within a person who does not want to be racist but whom, at the same time, holds *unconscious* racist beliefs (Fiske, 2000). In other words, the focus is on aversive racists who are unaware of their racism (Dovidio et al., 1996). For the purposes of this study, this theory will be logically extended to encompass unconscious sexist beliefs held by American society because in this society negative gender stereotypes are similarly ingrained into individuals.

Given this discrepancy between self-image and ingrained beliefs, ART suggests that in situations in which norms to guide behavior are weak and behavior can easily be justified by attributing actions to something other than race (or sex), subtle racism (or sexism) will take place. Then, people can behave in a prejudiced way but can also uphold the appearance of not being prejudiced (Wolfe & Spencer, 1996). There has been a fair amount of research supporting this theory (e.g., Devine, 1989; Dovidio et al., 1996).

Modern Racism Theory

Also focusing on subtle racism is McConahay's (1986) concept of modern or symbolic racism. Modern racism theory (MRT) is based on the idea that during the civil rights movement in the 1960s in the United States, changes in laws, policies, and socially

acceptable norms were thrust upon White Americans. Although they complied with laws and norms, they did not internalize beliefs regarding equality of the races (Eberhardt & Fiske, 1996). As such, MRT theorizes that modern racists express their racism through opposition to laws and policies—including organizational policies—that reflect equality. A modern racist will support a law or policy against blatant discrimination (1996) but will also “believe Blacks are unfairly pushing themselves into places where they are not wanted and gaining undeserved attention and status” (1996, p. 375). Despite their negative beliefs about minorities, a modern racist does not believe that he or she is racist (Eberhardt & Fiske, 1996; Fiske, 2000; Ziegert & Hanges, 2005). He or she does believe that discrimination is a thing of the past and that Blacks do not deserve the gains they have achieved (Dovidio et al., 1996; Eberhardt & Fiske, 1996; Ziegert & Hanges, 2005).

Although modern sexism has received less attention than modern racism, researchers also extend the theory of modern racism to issues of modern sexism (Dovidio, Mann, & Gaertner, 1989; Eberhardt & Fiske, 1996). Swim, Aiken, Hall, and Hunter (1995) draw several parallels between the concepts of modern racism and sexism:

There are social pressures to suppress old-fashioned prejudicial and stereotypical statements about women. Furthermore, people may resent women and African-Americans because these groups have both pushed for greater economic and political power and for the passage of anti-discrimination laws. Thus people, while rejecting old-fashioned discrimination and stereotypes, may believe that discrimination against women is a thing of the past, feel antagonistic toward women who are making political and economic demands, and feel resentment about special favors for women, such as policies designed to help women in academics or work (p. 200).

In the current study, MRT will be extended to the problem of modern sexism, and this theory will be used to inform the hypotheses made below.

Attribution Theory

The propositions and research findings of ART and MRT are important for shaping the hypotheses of the present study. Also important is attribution theory. Attributions are causal assumptions made by a person about an event. An event can be any number of things, from a poor performance evaluation to not getting an outcome that one expects to a behavior that could be perceived as discrimination. These examples of work-related events are consistent with theory and research suggesting that it is novel or unexpected events that prompt a person to consider the cause of that event (Ployhart & Harold, 2004; Wong & Weiner, 1981). The unexpectedness prompts an individual to ask, “Was it my fault, the organization’s, or chance?” (Ployhart & Harold, 2004, p. 86).

Weiner’s (1985) attribution theory proposes three causal dimensions of an event: locus [of causality], stability, and controllability (Weiner, 1985; see also Ployhart & Harold, 2004). The dimension that has received the most attention is locus of causality. Weiner (1985) categorized causality as internal and external. An internal attribution refers to situations in which “an aspect of the self is perceived to be causing an event” (Schmitt & Branscombe, 2002, p. 620) and an external attribution refers to “when something or someone in the environment is perceived to be causing [an event]” (2002, p. 620). (It is important to note that locus of causality is *not* conceptually the same construct as locus of control. As summarized by Furnham and Steele [1993], “while attributional measures are concerned with the *causes of past events*, locus of control measures are concerned with the *expectation of future events*” [p. 447]. Locus of control will be discussed in more detail later.)

Understanding attributions is important because they explain the process through which one develops perceptions of discrimination. However, this study concerns employees' perceptions of discrimination regardless of the cause. I examine the issue of whether perceiving discrimination is related to decreased motivation. Several findings related to attribution theory are important to shaping the hypotheses of this study. One such finding is that, depending on the attributions made for an event, "different types of affective, behavioral, and cognitive outcomes are likely (e.g., decreased motivation and unaffected organizational attractiveness if dispositional; increased motivation and decreased organizational attractiveness if situational)" (Ployhart & Harold, 2004, p. 87). Weiner concurred with this finding when he wrote: "the structure of causal thinking is next related to emotion and motivation" (1985, p. 549). Therefore, attribution theory and supporting research strengthen the main hypothesis of this study: perceived discrimination (i.e., an event is attributed to discrimination) will be related to motivation.

Realistic Group Conflict Theory

The basic idea of realistic group conflict theory (RCT) is that competition between social groups for valuable but limited rewards results in hostility and conflict (Brief, Umphress, Dietz, Burrows, Butz, & Scholten, 2005; Sherif, 1966; Tajfel & Turner, 1986). RCT suggests that prejudice surfaces from everyday conflicts of interest between groups (Wolfe & Spencer, 1996). That is, "when groups are engaged in reciprocally competitive and frustrating activities, such that the gain of desired goals by one results in loss for the other, the outgroup will become unfavorably stereotyped. Over time such stereotypes will become standardized and lead to a high degree of intergroup social distance. In other words, competition over scarce resources causes the rudiments of

intergroup hostility to take hold” (Jackson, 1993, p. 399). Furthermore, RCT suggests that hostility will increase as in-group identification increases (1993).

Today, RCT is considered to be one of the most well-supported and robust theories of intergroup hostility (Jackson, 1993). It can be extended to organizational contexts to the extent that majority group (male) and minority group (female) employees are in competition for rewards such as promotions, pay raises, or recognition (Brief et al., 2005). According to Brief et al., employees will “identify more with their own racial group and devalue those belonging to the other group. In turn, this heightened in-group solidarity and devaluation of the out-group could lead to factionalism and communication problems, thus explaining declines in organizational functioning” (2005, p. 830).

Although Brief et al. refer to racial groups, these concepts extend to gender groups. The idea of competition for rewards provides a basis for discrimination to take place within an organization and for employees to attribute behaviors to discrimination. The idea of in-group solidarity, or in-group identification, receives more attention in social identity theory, discussed next.

Social Identity Theory

When Tajfel and Turner (1986) wrote their chapter outlining social identity theory (SIT), their intention was to supplement Sherif’s (1966) realistic group conflict theory (RCT). As such, SIT was developed based on the notion that the in-group identification portion of RCT had been neglected. In-group identification has been defined as “the degree to which people derive personal and emotional meaning from their social category (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987)” (Operario & Fiske, 2001, p. 550-551). Others have defined it similarly as “the importance or centrality

of the group to the self (e.g., Major, Quinton, & Schmader, 2003)” (Eccleston & Major, 2006, p. 150). “The basic hypothesis, then, is that pressures to evaluate one’s own group positively through in-group/out-group comparisons lead social groups to attempt to differentiate themselves from each other” (Tajfel & Turner, 1986, p. 16). Therefore central to SIT is the idea that an individual internalizes group membership as a core part of his or her own self-concept; this is called in-group identification. In this way, SIT is able to shine light on the “neglected” part of RCT.

Tajfel and Turner developed three principles of SIT (Tajfel & Turner, 1986, p. 16): 1) “Individuals strive to achieve or to maintain positive social identity,” 2) individuals compare their in-group to other groups in order to determine self-worth, and 3) “when social identity is unsatisfactory, individuals will strive either to leave their existing group and join some more positively distinct group and/or to make their existing group more positively distinct.” As such, “people are motivated to see their own groups as being positively distinct from outgroups” (Hutchinson & Abrams, 2003, p. 498).

From the perspective of SIT, prejudice, stereotyping, and discrimination are thought to be the results of attempts to attain or maintain a positive social identity (Wolfe & Spencer, 1996; Phinney, 1990). In general, SIT suggests that when the majority discriminates against a minority member’s group the result is that the minority member has increased in-group identification (Branscombe, Schmitt, & Harvey, 1999). In fact, Tajfel and Turner note: “intergroup competition enhances intragroup morale, cohesiveness, and cooperation (Fiedler, 1967; Kalin and Marlowe, 1968; Vinacke, 1964)” (1986, p. 8).

A good deal of research addressing prejudice and discrimination has been based on the principles of attribution theory and SIT. Within the social psychology literature, two general perspectives have emerged: Crocker and Major's (1989) discounting perspective and Branscombe and Schmitt and colleagues' (Branscombe et al., 1999; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002; Schmitt & Branscombe, 2002) rejection-identification perspective. These are briefly discussed next.

Discounting Perspective

This model suggests that upon receiving negative feedback or a negative outcome, one will use self-protective strategies in order to buffer one's self-esteem and well-being (Crocker & Major, 1989; McCoy & Major, 2003; Schmitt & Branscombe, 2002). The three self-protective strategies are making attributions to prejudice (i.e., attribute to external causes), selectively devaluing [defined as "regarding as less important for their self-definition, those performance dimensions on which they or their group fare(s) poorly, and selectively valuing those dimensions on which they or their group excel(s)"] (Crocker & Major, 1989, p. 616)], and altering comparison groups (i.e., compare outcomes to other in-group members rather than to out-group members). So, if a person can self-protect then the negative event will be discounted and therefore self-esteem will be protected (see Figure 2).

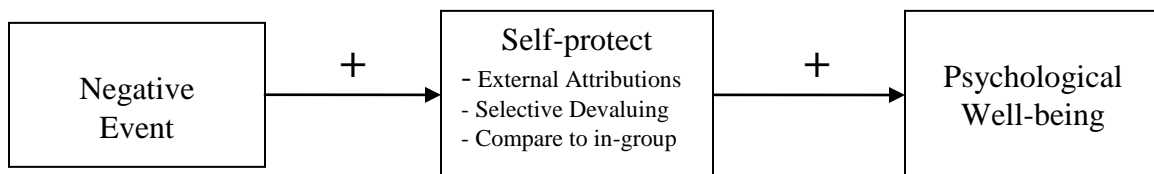


Figure 2: Crocker and Major's (1989) Discounting Model

Some research supports the discounting perspective. For example, in a laboratory experiment Major, Quinton, and Schmader (2003) found a main effect of prejudiced cues on attributions to discrimination such that women in an overt prejudice condition were significantly more likely to attribute their failure on a creativity task to gender discrimination than were women in an ambiguous or no prejudice condition. And, self-esteem was highest among women in the overt prejudice condition, suggesting the presence of a buffering effect. In other words, when women were certain failure was due to prejudice, an external cause, their self-esteem was buffered and remained high. This discounting effect has been demonstrated using sex as a stigma (e.g., Crandall, Tsang, Harvey, & Britt, 2000, Experiment 3; Crocker, Voelkl, Testa, & Major, 1991; Kaiser & Miller, 2001; Major, Kaiser, & McCoy, 2003), using race as a stigma (e.g., Crandall et al., 2000, Experiment 2; Sellers & Shelton, 2003), and using breath-freshness as a stigma (e.g., Crandall et al., 2000, Experiment 1).

Despite this research evidence, other researchers believe that the discounting perspective is flawed because it assumes that attributions to prejudice are completely external. Therefore Branscombe and colleagues put forth the rejection-identification perspective, discussed next.

Rejection-Identification Perspective

Branscombe and colleagues believe that attributions to prejudice are not completely external, but rather have both an internal and external component (Schmitt & Branscombe, 2002). Their logic is that in the face of prejudice one will attribute the bias to external causes, but the prejudice is also dependent upon one's own minority status, which they consider internal cause. Minority status is an internal cause because it is a

property of the individual that they cannot control. The theorists were able to demonstrate that attributions to prejudice do in fact have both an internal and external component in a laboratory study (Schmitt & Branscombe, 2002).

As an alternative to the discounting perspective, Branscombe and colleagues put forth the rejection-identification model. This model hypothesizes that perceptions of prejudice result in decreased self-esteem and well-being (i.e., a direct negative effect), and that this relationship is mediated and alleviated by in-group identification (Branscombe et al., 1999; McCoy & Major, 2003; see Figure 3).

Research supports the direct negative relationship between perceived discrimination and well-being (e.g., Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Dion & Earn, 1975; Lee, 2005; Leonardelli & Tormala, 2003). Other research supports both the direct and mediating relationships. For example, Branscombe et al. (1999) found that African Americans' willingness to make attributions to prejudice was significantly and positively related to minority group identification (i.e., in-group identification), which was in turn significantly and positively related to both personal and collective self-esteem. In-group identification was also negatively related to frequency of experiencing negative emotions. In fact, Branscombe and colleagues have demonstrated support for their rejection-identification model across many studies, using a variety of social categories (Garstka, Schmitt, Branscombe, & Hummert, 2004; Jetten, Branscombe, Schmitt, & Spears, 2001; Postmes & Branscombe, 2002; Schmitt et al., 2002; Schmitt, Branscombe, & Postmes, 2003; Schmitt, Spears, & Branscombe, 2003).

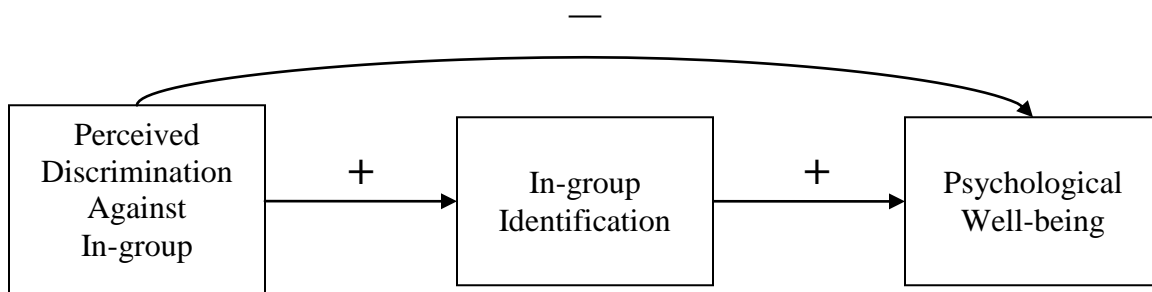


Figure 3: Branscombe and Schmitt's Rejection-Identification Model

Some researchers have found support for both the discounting and the rejection-identification perspectives. This research shows that discounting may occur, but not for every individual across every situation. Two factors that determine whether or not discounting will occur are in-group identification and historical disadvantage. These are important factors because they will be used in the current study as moderators of the relationship between perceived discrimination and work motivation.

The moderating role of in-group identification

Examination of in-group identification as a moderating or mediating variable of the relationship between prejudice and self-esteem is consistent with the prediction made by SIT, namely that discriminatory behavior is directly related to the extent to which one identifies with their in-group (Hodson, Dovidio, & Esses, 2003). Research supporting in-group identification as a mediator was discussed above with the rejection-identification model. But, other research supports in-group identification as a moderating variable (e.g., Major, Quinton, & Schmader, 2003). For example, McCoy and Major (2003) identified in-group identification as a moderator of the relationship between discrimination and

well-being. In McCoy and Major's first study, women give a speech via intercom to a fictitious male evaluator. The feedback they received about their speech was always negative. The sexism of the "evaluator" was manipulated. Results indicated that feedback had no effect on participants' mood or self-esteem when the evaluator was not sexist and when the participants had low in-group identity. When the evaluator was sexist, mood became more depressed and self-esteem decreased for those with high in-group identification. Thus, high in-group identifiers conformed to the rejection-identification model, prompting the conclusion that "the hypothesis that attributions to discrimination are detrimental may be primarily true when the group membership is a core aspect of self" (McCoy & Major, 2003, p. 1011). Conversely, low in-group identifiers conformed to the discounting perspective: "Crocker and Major's self-protective attributional strategy may be primarily effective for members of stigmatized groups for whom the group is not a core aspect of the self" (McCoy & Major, 2003, p. 1011). These conclusions held when in-group members were both women (Study 1) and ethnic minorities (Study 2).

Consistent with this research, in-group identification will be used in the current study to account for individual differences in the relationship between perceived discrimination and motivation. That is, in-group identification is expected to moderate the discrimination-motivation relationship; this hypothesis is discussed in more detail later.

Historical, stable, and pervasive disadvantage

A growing body of research evidence suggests that one factor determining whether support will be found for the rejection-identification or the discounting model is whether prejudice against one's group is seen as pervasive and stable (i.e., historical

disadvantage) or whether it is seen as a single instance of prejudice (Branscombe et al., 1999; McCoy & Major, 2003; Schmitt & Branscombe, 2002). Branscombe et al. (1999) suggested that “the effects of making attributions to prejudice may be fundamentally different depending on whether the attribution is specific to a single instance of prejudice or whether it is reflective of a more general sense of stable and pervasive prejudice against one’s group” (p. 136).

Branscombe and colleagues hypothesized that members of disadvantaged groups (women) would suffer psychological harm from perceiving discrimination because discrimination against their group is pervasive and uncontrollable, but members of the privileged group (men) would not suffer this psychological harm because prejudice against their group would represent isolated, controllable instances (Schmitt et al., 2002). Results supported this hypothesis. Women conformed to the rejection-identification model such that perceived discrimination had a direct, negative effect on psychological well-being, perceived discrimination increased in-group identification, and in-group identification enhanced well-being. But, men who perceived prejudice against their sex group—presumably an isolated incident of prejudice as men are not historically disadvantaged—did not suffer harm to their psychological well-being as it was seemingly buffered from harm via discounting (Schmitt et al., 2002). Other studies have led to the same conclusions regarding historical disadvantage (e.g., Schmitt & Branscombe, 2002, Study 2; Schmitt et al., 2003).

These findings support the notion that whether prejudice against one’s group is seen as pervasive and stable (i.e., historical disadvantage) or as a single instance of prejudice alters the relationship between prejudice and well-being. These findings are

also supported by research that examines the role of past experience with discrimination, which is the same concept as historical disadvantage. Such research finds that past experience with discrimination can make one more sensitive to it (Ployhart & Harold, 2004; Ryan, 2001; Ryan, Sacco, McFarland, & Kriska, 2000). The importance of this research to the current study is that race will be used to account for historic disadvantage and will be hypothesized to moderate the perceived gender discrimination-motivation relationship.

Discrimination Research

Perceived Discrimination and Work Motivation

Very few published studies exist that consider the impact of being the victim of discrimination on work motivation. Indeed, over 25 years ago Feagin and Eckberg (1980) drew a similar conclusion about the lack of research considering the victims of discrimination. This dearth of research is consistent with the contention that researchers historically have focused on why discriminators discriminate and have ignored the victims of discrimination (Deitch et al., 2003; Dion, 2002; Fiske, 1998; King, 2003) and points to the need for more research that examines the outcomes of discrimination.

One exception is a study conducted by Blaine, Crocker, and Major (1995), who examined several outcomes of discrimination, including work motivation. However, their study had serious methodological flaws. The method they used involved asking participants to read hypothetical situations about incidents of discrimination. Furthermore, the sample used was a largely White sample of students who were instructed to *imagine* they were stigmatized individuals (i.e., racial minorities).

Participants then responded to self-report surveys about what they *thought* their motivation would be if they were to experience the hypothetical situation as a minority. Although results did support the hypothesized negative relationship between discrimination and work motivation, it is unlikely that White students imagining to be minorities experiencing discrimination in a fictional anecdote can provide an accurate account of what the impact would actually be on minorities' motivation. It is therefore the goal of the present study to assess the relationship between perceived discrimination and work motivation using a stronger methodology.

Discrimination and Organizations

Although there is a shortage of research that examines the relationship between perceived discrimination and work motivation, other relationships with discrimination have been examined within organizational contexts. Not surprisingly, these studies' results indicate that perceived discrimination is related to negative outcomes. For example, Gutek, Cohen, and Tsui (1996) used a sample of professional psychologists and a sample of senior managers to examine reactions to perceived sex discrimination. The authors used six dependent variables: job involvement, power and prestige of current job, work conflict, choosing the same career again, number of hours in paid work, and turnover intentions. The results indicated that, compared to men, women were more likely to perceive discrimination against women as a group; that both men and women perceived more discrimination against women than against men; and that for women perceived discrimination was related to more work conflict, more hours spent on paid work, less perceived power and prestige, and less probability of choosing the same career

again (for men, perceived discrimination was related only to less perceived power and prestige).

Sanchez and Brock (1996) obtained similar results among a sample of Hispanic workers. Specifically, they were able to show that perceived discrimination negatively affected job outcomes above and beyond the negative impact of other stressors (role ambiguity and role conflict). The affected job outcomes were job satisfaction, organizational commitment, and work tension. Ensher et al. (2001) also found a negative relationship between perceived discrimination and both job satisfaction and organizational commitment. They further found a negative relationship between discrimination and organizational citizenship behaviors. These results held whether discrimination was perceived to be from supervisors, coworkers, or the organization itself. Other researchers have also established relationships between perceived discrimination and job satisfaction (e.g., Holcomb-McCoy & Addison-Bradley, 2005).

Although none of the dependent variables used in these studies (e.g., job satisfaction, organizational commitment, work conflict) are examined in the current study, these studies do provide evidence that discrimination is perceived in the workplace and that it does impact organizational outcomes. It is therefore plausible that the hypothesized relationships among perceived discrimination, work motivation, and job performance will be observed. Next I will discuss a potential moderating variable of the hypothesized relationships, locus of control.

Locus of Control

Locus of control is an individual difference personality variable. It was developed by Rotter (1954, 1966), and refers to whether people attribute the control of events to

themselves or to the external environment. Therefore an *internal* locus reflects the belief that a person can master his or her external environment (Ng, Eby, Sorensen, & Feldman, 2005; Spector, 1982), while an *external* locus reflects the belief that a person cannot master his or her environment (Spector, 1982). In the current study, locus of control will be examined as a moderating variable of the relationship between perceived discrimination and motivation. Therefore general research and research specific to motivation will be discussed.

Spector (1982) provided an excellent review of the locus of control construct. He demonstrated that although nearly all studies use Rotter's (1966) self-report measure of locus of control, which measures locus as a continuous variable, researchers nearly always speak in terms of an internal versus external dichotomy. Spector (1982) also found that, in general, researchers find in favor of internals. For example, Spector provides research examples demonstrating that internals "exert greater efforts to control their environment, exhibit better learning, seek new information more actively when that information has personal relevance, use information better, and seem more concerned with information rather than with social demands of situations" (1982, p. 484). He also provides evidence that internals exhibit less conformity. And finally, in his review Spector (1982) cited research that was able to validate locus of control as a real construct independent of other constructs including anxiety, social desirability, and achievement motivation.

Locus of Control and Motivation

Early research focused on how locus of control fit into the expectancy theory of motivation (Spector, 1982). In his review of the locus of control literature, Spector (1982)

speculated that those with an internal locus of control would have greater work motivation than those with an external locus. He reasoned that “internals would be more likely to believe that their efforts will lead to rewards, especially when they actually do, and thus internals would tend to exhibit higher motivation” (p. 486), thus making them better candidates for jobs that require high motivation. Spector further postulated that “although internals will tend to exhibit greater job motivation than externals do, job settings in which rewards do not follow performance will not long show the internal-external differences” (1982, p. 487). Research generally supports Spector’s suggestions and a general relationship between motivation and locus of control (e.g., Blau, 1993; Broedling, 1975; Evans, 1974; Lied & Pritchard, 1976; Organ & Greene, 1974; Szilagyi & Sims, 1975).

In the current study, locus of control will be examined as a moderating variable of the relationship between perceived discrimination and motivation. It will be hypothesized that people with a more external locus of control will see discriminatory events as due to chance factors beyond their control. Rather than reacting to the discrimination they will accept it, and so will experience a strong decrease in motivation. But, a person with an internal locus of control will believe that he or she can master his or her environment, in which case their motivation will be less adversely affected. This hypothesis is expounded upon later.

Performance

The primary concern of most organizations is profitability. Therefore, because of its presumed direct translation into profit, organizations focus heavily on the performance of their human resources. Because of this significance placed on job performance, it is

important to consider relationships among the current study's primary variables (perceived gender discrimination and motivation) and performance.

Job performance is “the total expected value to the organization of the discrete behavioral episodes that an individual carries out over a standard period of time” (Motowidlo, 2003, p. 39). Performance is distinct from productivity. Productivity is generally considered to be a measure of objective output, such as number of widgets built or number of dollars in sales, or an input to output ratio (Pritchard et al., 1989; Pritchard, 1992). Conversely, performance has a more qualitative component to it, and goes beyond just output. It considers the behaviors or process an employee uses to generate output. Although both can be important to an organization, Hunter, Schmidt, Rauschenberger, and Jayne (2000) describe a shift within organizations where “supervisors are beginning to explore appraisal schemes that evaluate workers more on the basis of their ability to ‘produce results’ rather than achieve pre-agreed upon objectives” (p. 299). Therefore the construct measured in this study will be performance. Specifically, a direct, positive relationship is expected to emerge between work motivation and job performance. This is an often-studied relationship, and research supporting it is discussed next.

Performance and Motivation

That “motivation is an important factor in job performance and human productivity” (Pinder, 1998, p. 14) is a little argued fact. Although its operationalization varies according to the particular theory being used, motivation has consistently been linked to performance (Blau, 1993; Campbell, 1990; Motowidlo, 2003; Pinder, 1998). While lay theory suggests that most people assume equal ability among all individuals and so differences in performance directly reflect motivation and effort (Hunter et al.,

2000), today it is recognized that both individual factors (such as motivation, affect, personality, and ability) and situational factors (such as autonomy, available tools and supplies, and the economy) influence performance (Campbell, 1990; Motowidlo, 2003; Pinder, 1998). For example, Blau (1993) demonstrated that direction and level of effort, key determinants in most motivation models, showed main effects and an interactive effect in predicting bank teller performance. As in Blau's (1993) study, here too I expect to observe significant relationships between motivation and performance. This and other hypotheses are presented next.

CHAPTER THREE: HYPOTHESES

Perceived Discrimination and Motivation

Psychological theorists and researchers agree that both individual differences and the environment influence motivation (Mitchell & Daniels, 2003). My model for this study follows this reasoning by using individual difference variables and external, environmental factors to predict motivation. Specifically, my model suggests that the environmental factor of discrimination, when perceived, will influence motivation, and this relationship will be moderated by individual differences (see Figure 4).

The theories discussed in the literature review support a relationship between perceived gender discrimination and overall motivation. According to attribution theory, the attribution one makes for an event (i.e., discrimination is the event) will affect affective, behavioral, and cognitive outcomes, including one's motivation (Ployhart & Harold, 2004; Weiner, 1985). Therefore these theorists are suggesting that perceived discrimination is related to motivation. A hypothesis of a relationship between motivation and performance is further justified as other researchers have made this hypothesis (e.g., Blaine et al., 1995).

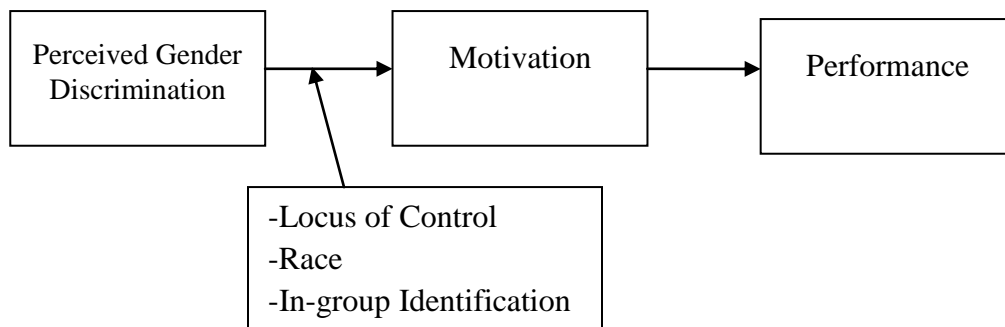


Figure 4: Relationship among study variables

However, the theory of motivation used in the present study and discussed in the literature review is the updated NPI theory (Pritchard & Ashwood, 2007). Recall that this theory posits five main constructs and four main connections that comprise the motivation process. Actions, results, evaluations, outcomes, and need satisfaction create the four connections: action-to-result, result-to-evaluation, evaluation-to-outcome, and outcome-to-need satisfaction. Therefore, my study examines whether discrimination is related to each of these components of motivation and not merely to overall motivation.

The first of Pritchard and Ashwood's (2007) connections refers to the connections between one's actions and results. On the face of it, it seems as though perceived discrimination might not impact this connection. That is, the actions one takes to create a product might be unaffected by external factors such as discrimination. But, recall that the motivation theory also describes a list of determinants that influence the strength of one's actions-to-results relationships. When considering this list (see Appendix A), it becomes clear that there are several places where discrimination could hinder one's ability to turn actions into results.

Determinants of action-to-result connections include receipt of training, the authority to make relevant decisions, having enough time to do one's job, having required tools and equipment, having required supplies and materials, and having work be delayed by others. As discussed in the literature review, aversive racism theory and modern racism theory suggest that in situations where norms are weak, where a discriminator can blame his or her behavior on something else (such as an organizational policy), and where there is a climate for racial or gender bias, discrimination will result (Eberhardt & Fiske, 1996; Gaertner & Dovidio, 1986; McConahay, 1986; Ziegert & Hanges, 2005). Furthermore,

realistic group conflict theory suggests that to the extent that majority group and minority group employees are in competition for rewards such as promotions, pay raises, or recognition, discrimination can result (Brief et al., 2005). As such, competition over available training opportunities, tools and equipment, supplies and materials, and so on might leave minority groups in need of these resources. In other words, inasmuch as one is a victim of subtle discrimination these and other determinants could be negatively impacted and thus the strength of one's action-to-results connections will be weakened. Therefore the following hypothesis is made:

Hypothesis 1a: *Perceived discrimination will be negatively related to perceived action-to-result connections.*

The second component of motivation according to Pritchard and Ashwood's (2007) theory of motivation are the connections between one's results and evaluations. Research demonstrates that when there is a climate or social norm that supports discrimination, it will take place (Ziegert & Hanges, 2005); given the subjective nature of evaluations, there is ample opportunity for an evaluator to give a poor evaluation due to prejudice and yet justify it through performance. More importantly, there are grounds for the individual being evaluated to *perceive* that this process is taking place with regard to their evaluations. Attribution theory (Weiner, 1985) and the related perspectives put forth by Crocker and Major (1989; discounting perspective) and Branscombe and colleagues (Branscombe et al., 1999; rejection-identification perspective) support this because they suggest that in the face of prejudice one will attribute the employer's bias to external causes (i.e., discrimination) rather than to themselves. Therefore the following hypothesis is made:

Hypothesis 1b: *Perceived discrimination will be negatively related to perceived result-to-evaluation connections.*

The third aspect of motivation according to Pritchard and Ashwood's (2007) theory of motivation refers to the connections between one's evaluations and outcomes. It is hypothesized here that to the extent an individual perceives she is the victim of discrimination, that individual will indicate weak relationships between their evaluations and outcomes. This hypothesis follows the same logic made in the previous hypothesis regarding the subjectivity of evaluations. Specifically, in line with modern racism and sexism theories, the subjective nature of evaluations provides ample opportunity for an evaluator to give a poor evaluation due to prejudice and yet justify it through performance. More importantly, there are grounds for the individual being evaluated to *perceive* that this process is taking place with regard to their evaluations. Attribution theory (Weiner, 1985) and the related perspectives put forth by Crocker and Major (1989; discounting perspective) and Branscombe and colleagues (Branscombe et al., 1999; rejection-identification perspective) support this in that they suggest that in the face of prejudice one will attribute the employer's bias to external causes. So, if evaluations are perceived as invalid then the link one makes between their evaluations and the outcomes tied to them will be damaged.

Hypothesis 1c: *Perceived discrimination will be negatively related to perceived evaluation-to-outcome connections.*

And finally, the fourth aspect of the motivation theory refers to outcome-to-need satisfaction connections. Previous research and theories do not dictate a relationship between these connections and perceived discrimination. The ability of a received

outcome to satisfy a need may or may not be related to perceptions of discrimination. Therefore no hypothesis is made about this relationship.

Race and In-group Identification

Conceptualizations of motivation as cognitive, affective, and influenced by the environment (Ployhart & Harold, 2004; Weiner, 1985) allow parallels to be drawn between motivation and the well-being construct that is relied upon by social identity theorists. For example, psychological well-being has been shown to predict job performance (Wright & Cropanzano, 2000, as cited in Mitchell & Daniels, 2003), a relationship also demonstrated between motivation and job performance (Broedling, 1975; Mitchell & Daniels, 2003). And Mitchell and Daniels (2003) report the findings of a study by Erez, Isen, and Purdy (1999) in which subjects' moods were manipulated to be more positive, which resulted in more persistence and better performance on a subsequent task. This relationship was mediated by an increase in subjects' valence, instrumentality, and expectancy perceptions (i.e., motivation). These results suggest a connection between affect and motivation. Thus, the discounting and rejection-identification perspectives and related research will be used to inform the next set of hypotheses.

As discussed in the literature review, social identity theorists have begun to develop a body of research examining the impact of historical disadvantage (also referred to as stable and pervasive discrimination) relative to those who are not historically disadvantaged (sometimes referred to as the privileged group). Based on this body of research, discussed in the literature review above, I will use race as a proxy for historical disadvantage. I therefore expect that race will moderate the relationship between

discrimination and motivation such that racial minorities who perceive discrimination will conform to the rejection-identification perspective by showing a direct negative effect on motivation. But, majority group members who perceive discrimination will not experience this negative effect on motivation. Rather, they will conform to the discounting perspective by discounting the discrimination and their protecting their motivation. This hypothesis conforms to the predictions and conclusions drawn by Schmitt et al. (2002) and others (Branscombe et al., 1999; McCoy & Major, 2003; Schmitt & Branscombe, 2002; Schmitt et al., 2003) who found that members of the disadvantaged group conformed to the rejection-identification model such that perceived discrimination had a direct, negative effect on psychological well-being, and members of the privileged group who perceived prejudice against their racial group did not suffer harm to their psychological well-being as it was seemingly buffered from harm via discounting. These arguments lead to the following predictions about the moderating effects of race.

Hypothesis 2a: *The relationship between perceived discrimination and one's perceived action-to-result connections will be moderated by race such that the relationship will be negative for both, but significantly more negative for minorities than for non-minorities.*

Hypothesis 2b: *The relationship between perceived discrimination and one's perceived result-to-evaluation connections will be moderated by race such that the relationship will be negative for*

both, but significantly more negative for minorities than for non-minorities.

Hypothesis 2c: *The relationship between perceived discrimination and one's perceived evaluation-to-outcome connections will be moderated by race such that the relationship will be negative for both, but significantly more negative for minorities than for non-minorities.*

Because previous research and theories do not necessarily dictate a relationship between perceived discrimination and outcome-to-need satisfaction connections, no hypothesis is made about this connection.

Schmitt et al. (2002) and others (Branscombe et al., 1999; McCoy & Major, 2003; Schmitt & Branscombe, 2002; Schmitt et al., 2003) reached additional conclusions about in-group identification based on the results of their studies. Recall that their rejection-identification model posits that in-group identification alleviates the direct negative relationship between perceived discrimination and well-being (Schmitt & Branscombe, 2002). Therefore based on the additional results found by the above authors, I also hypothesize that among minorities there will be an interaction in which minorities higher in in-group identification experience higher motivation and minorities lower in in-group identification experience lower motivation. I expect no relationship between in-group identification and motivation for non-minorities.

Hypothesis 3a: *There will be a significant interaction between race and in-group identification such that among racial minorities there will be a positive relationship between in-group*

identification and action-to-result connections and among non-racial minorities there will be no relationship.

Hypothesis 3b: *There will be a significant interaction between race and in-group identification such that among racial minorities there will be a positive relationship between in-group identification and result-to-evaluation connections and among non-racial minorities there will be no relationship.*

Hypothesis 3c: *There will be a significant interaction between race and in-group identification such that among racial minorities there will be a positive relationship between in-group identification and evaluation-to-outcome connections and among non-racial minorities there will be no relationship.*

Because previous research and theories do not necessarily dictate a relationship between perceived discrimination and outcome-to-need satisfaction connections, no hypothesis is made about this relationship.

Locus of Control

In a situation in which an individual could perceive discrimination, one could logically expect one of two outcomes. Discrimination could have a detrimental effect on motivation or could lead to increased motivation via a reaction of trying to falsify the stereotype that is the basis for discrimination. The difference between these two reactions could be attributed to locus of control. That is, a person with a more external locus of control sees events as due to chance or luck. This person will accept the discrimination and it will subsequently have a negative effect on their motivation. But, a person with a

more internal locus of control believes that they can control or master their environment. In this case, the perceived discrimination might actually be less detrimental to one's motivation. This might be because "those with a more internal focus may have greater psychological resources for persevering and succeeding in the face of setbacks" (Ng et al., 2005, p. 374).

In the literature review I cited research examples that consistently showed a relationship between locus of control and motivation. In particular, researchers have shown a relationship between locus of control and the connections and propositions of expectancy theory. These researchers demonstrate that those with an internal locus of control report higher work motivation. Based on this reasoning the following hypotheses are made about locus of control:

Hypothesis 4a: *The relationship between perceived discrimination and one's perceived action-to-result connections will be moderated by locus of control such that the relationship will be negative for both internals and externals, but less negative for internals.*

Hypothesis 4b: *The relationship between perceived discrimination and one's perceived result-to-evaluation connections will be moderated by locus of control such that the relationship will be negative for both internals and externals, but less negative for internals.*

Hypothesis 4c: *The relationship between perceived discrimination and one's perceived evaluation-to-outcome connections will be*

moderated by locus of control such that the relationship will be negative for both internals and externals, but less negative for internals.

Because previous research and theories do not necessarily dictate a relationship between perceived discrimination and outcome-to-need satisfaction connections, no hypothesis is made about this relationship.

Motivation and Performance

In previous studies, researchers consistently find a relationship between motivation and performance (Blau, 1993; Campbell, 1990; Motowidlo, 2003; Pinder, 1998; Spector, 1986). This relationship was found using a variety of motivation theories, and using a variety of objective, subjective, global, and specific performance measures. It was also found across a variety of industries, companies, job types, and occupational levels. In order to replicate these results, the following hypotheses are made.

Hypothesis 5a: *There will be a positive relationship between overall motivation and performance.*

Hypothesis 5b: *There will be a positive relationship between action-to-result motivation connections and performance.*

Hypothesis 5c: *There will be a positive relationship between result-to-evaluation motivation connections and performance.*

Hypothesis 5d: *There will be a positive relationship between evaluation-to-outcome motivation connections and performance.*

Hypothesis 5e: *There will be a positive relationship between outcome-to-need satisfaction motivation connections and performance.*

Recall that Pritchard and Ashwood's (2007) theory of motivation is an expectancy theory that suggests the motivation process is composed of a chain of connections (see Figure 1). Also recall that one of the propositions of this theory is that a "weakest-link" effect takes place in which motivation can only be as high as the weakest link in the chain. For example, suppose an employee can easily see how her actions are able to produce results, and how her evaluations are based on these results. But, this employee sees no relationship between her evaluations (e.g., an overall score on a performance appraisal) and her outcomes (e.g., the size of her raise). Then it does not matter how strongly the employee associates her outcomes with her needs being satisfied or how strongly she links her actions and results or results and evaluations; her level of work motivation will be limited by the size her evaluation-to-outcome connections because it is the weakest connection in her motivation chain. Therefore hypotheses made about the relationship between motivation and performance will use the connection that is the weakest. These hypotheses compare individuals' weakest connections with self-ratings of overall motivation, supervisor ratings of overall motivation, and supervisor ratings of performance. I am using self-ratings of motivation because motivation is an internal process and as such is best measured via self-report. I am using supervisor ratings of motivation in order to gain a more complete picture of motivation. In other words, any self-report measure of overall motivation could be deficient in that it cannot capture the

entire construct of overall motivation. By using supervisor ratings of overall motivation I am attempting to gain a more complete picture of an individual's overall motivation.

Therefore the following hypotheses are made:

Hypothesis 6a: *There will be a positive relationship between the weakest connection of the motivation process and participant ratings of motivation and this relationship will be stronger than that between motivation and the mean of all motivation connections.*

Hypothesis 6b: *There will be a positive relationship between the weakest connection of the motivation process and supervisor ratings of motivation and this relationship will be stronger than that between motivation and the mean of all motivation connections.*

Hypothesis 6c: *There will be a positive relationship between the weakest connection of the motivation process and performance, and this relationship will be stronger than that between performance and the mean of all motivation connections.*

Hypothesis 7: *Motivation will mediate the relationship between perceived discrimination and performance.*

These hypotheses are summarized in graphical form in Figure 5.

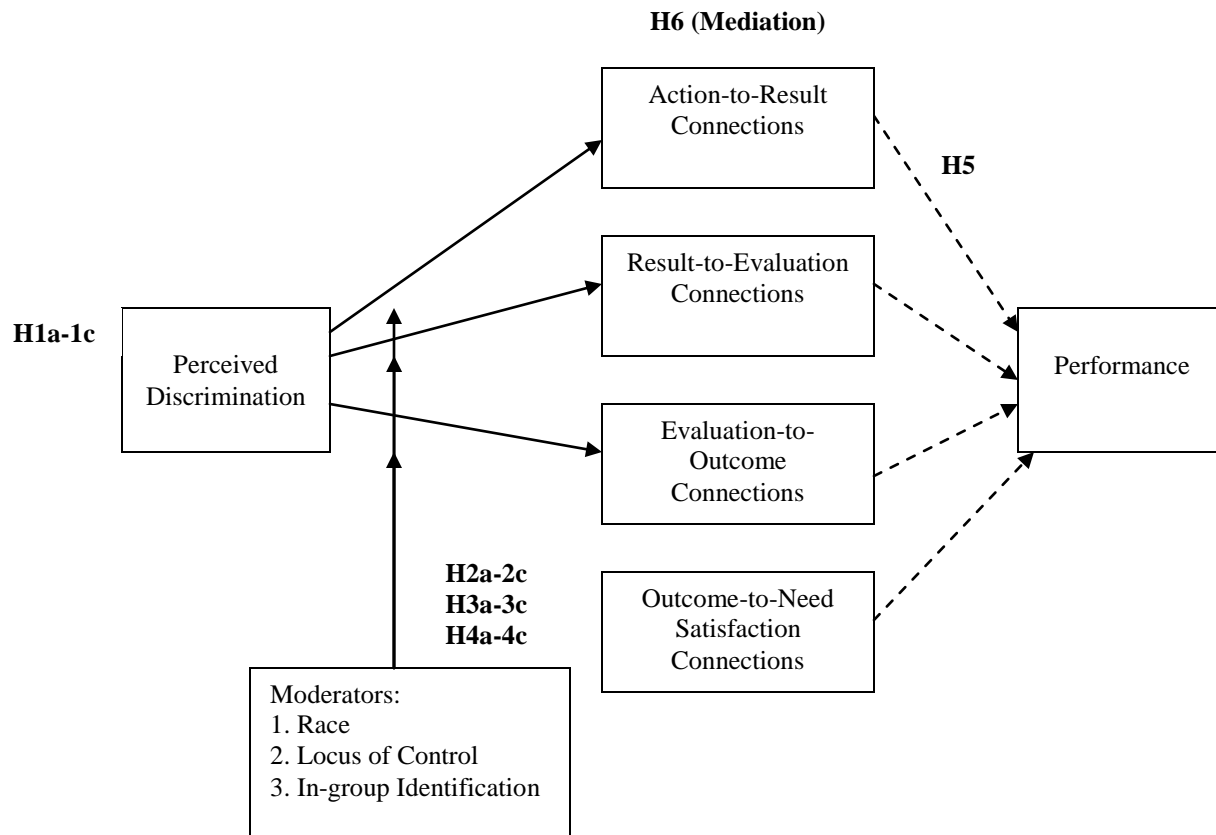


Figure 5: Graphical Representation of Hypothesized Relationships.

CHAPTER FOUR: DESIGN AND METHODOLOGY

Procedure

All surveys were administered on computers via an on-line data collection system. Participants were currently employed females who worked at least 10 hours per week. The majority of the participants were undergraduate students who received class credit for their participation. Because of the on-line administration, participants completed the study surveys on their own at any time that was convenient for them versus attending a pre-set session overseen by an experimenter.

Participants first read and agreed to an informed consent. Participants were then asked to complete five self-report surveys. These five surveys measured demographic information, work locus of control, in-group identification, work motivation, and perceived discrimination. The demographic items addressed age, race, gender, education level, tenure at the current organization, tenure in the current position, and job centrality. All participants completed the perceived discrimination items last in order to avoid contamination from being exposed to these items. The estimated amount of time to complete all study measures was 45 minutes.

In addition to collecting data from participants, I also collected data from supervisors. Specifically, upon completion of the study participants were sent an email that invited them to ask a supervisor to complete performance and overall motivation questionnaires (referring to the participant's performance and motivation). The supervisor measures were available to complete on-line via the Internet. Participants were asked to

provide to their supervisors the Internet link to a website where supervisors could respond to the overall motivation and performance items.

Measures

Perceived Discrimination

Perceived sex discrimination was measured with five items adapted from a study by Schmitt, Branscombe, Kobrynowicz, and Owen (2002). Schmitt et al. developed the items to measure outgroup privilege and to be general rather than context-specific. These authors obtained high internal consistency ($\alpha = .83$). For the current study the items were modified to be workplace-specific. For example, an original item read: “Men [women] in general have had opportunities that they wouldn’t have gotten if they were women [men],” and the modified item read: “Men in general have opportunities at this organization that I do not have.” An original item read: “Men have received preferential treatment because of their gender,” and the modified item read: “At this organization, men have received preferential treatment because of their gender.” Three additional items assessing perceived discrimination were added so that the total scale contains eight items (see Appendix H). The obtained coefficient alpha for this scale was a very high 0.96.

In-group Identification

Luhtanen and Crocker (1992) developed four items to assess gender identification, which is a type of in-group identification. The four items make up the *Importance to Identity* subscale of their Collective Self-Esteem Scale. In three studies, these authors obtained Cronbach’s alpha reliability coefficients ranging from .73 to .86. Other researchers have obtained similarly high alpha coefficients when using this scale

(e.g., Major, Quinton, & Schmader, 2003, $\alpha = .81$; McCoy & Major, 2003, $\alpha = .68$). Sample items include, “Being a woman is an important reflection of who I am,” and “Overall, being a woman has very little to do with how I feel about myself (reverse scored).” In addition to these four items from Luhtanen and Crocker (1992), four items from Schmitt, Branscombe, Kobrynowicz, and Owen (2002) were used. These authors obtained a Cronbach’s alpha reliability coefficient of .85. Sample items include, “I like being a member of my gender group,” and “I believe that being a member of my gender group is a positive experience.” The obtained coefficient alpha for this scale was 0.84.

Work Locus of Control

Spector’s (1988) Work Locus of Control Scale (WLCS) was used to measure locus of control in work settings. Based on Rotter’s (1966) commonly used 29-item Internal-External Control (I-E) scale of general locus of control, the WLCS is composed of 16 items, each with 6 response options (see Appendix D). Locus of control is treated as a unidimensional construct with this scale so that respondents will either be determined to have an internal or an external locus of control. Low scores represent an internal work locus of control. There are equal numbers of internal and external locus items. An example of an internal locus item is “Promotions are given to employees who perform well on the job.” An example of an external locus item is “Promotions are usually a matter of good fortune.” Higher scores indicate an external locus, while lower scores indicate an internal locus of control. In six independent samples, the WLCS had Cronbach’s coefficient alpha reliabilities ranging from .75 to .85 (Spector, 1988). In the current study, alpha was 0.82.

Performance

Performance was measured via supervisors' responses to five Likert-type items. These five items assessed overall performance and used five-point Likert-type response scales. A sample item is "In how many areas does this person's performance need to improve?" Response options for this item range from *None* to *Most Areas*. The complete performance measure is available in Appendix F. The coefficient alpha for this scale was 0.88.

Work Motivation

Work motivation was measured via self-report. This is appropriate in that motivation is a hypothetical process internal to individuals, and thus is not directly observable. As such, self-report could be considered the only way to directly measure motivation. The measure used is a new measure of motivation, the Motivation Assessment Questionnaire (MAQ), and is based on Pritchard and Ashwood's (2007) theory of motivation (see Figure 1 and Appendix A). This satisfies a criterion put forth by Nunnally & Bernstein (1994): "a test designed for construct validity cannot be developed without a theory that dictates the properties of that measure" (p. 310).

Development of the MAQ began in the fall of 2000, and was led by Robert Pritchard. As mentioned above, the purpose of the questionnaire is to assess motivation in the workplace, and the design of the measure is based on the principles and relationships specified in Pritchard and Ashwood's (2007) theory of motivation. Four subscales measure the four main connections specified in the motivation theory. The first connection measured is the *action-to-results* connection. A sample item is: "My level of

effort determines how productive I am in this job.” This subscale is composed of five items.

The next connection measured is the *result-to-evaluation* connection. This connection is divided into three subsections, which ask the same set of questions three times but once asking respondents to consider formal evaluations, once to consider self-evaluations, and once to consider informal evaluations. A sample item is: “My productivity has no effect on the formal evaluations of my work” (reverse coded). Repeated in the other two subsections, this item reads, respectively: “My productivity has no effect on my evaluations of my own work”, and “My productivity has no effect on the informal evaluations of my work.” Each of these subscales is composed of 6 items, for a total of 18 items.

The third connection measured is the *evaluation-to-outcome* connection, which is again divided into three subsections in order to measure formal, self, and informal evaluations. A sample item is: “The job outcomes I get have little to do with how good my formal evaluations are” (reverse coded). This same item repeated in the self and informal evaluations subsection reads, respectively: “The job outcomes I give myself have little to do with how good a job I think I did”, and “The job outcomes I get have little to do with how good my informal evaluations are.” Each of these subscales is composed of 5 items, for a total of 15 items.

And finally, the fourth main connection measured in the MAQ is the *outcome-to-need satisfaction* connection. A sample item is: “The outcomes I get on this job are valuable to me.” This subscale is composed of five items.

All items in these four subscales use a five-point Likert response scale; however, the anchors used vary according to what is appropriate for each particular item. For example, some scales are anchored with *Never, Rarely, Sometimes, Usually, Always*, while others are anchored with *Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree*, and so on. One final section in the Motivation Analysis Questionnaire (MAQ) is one that measures overall motivation. This subscale consists of six items, for example, “Overall, how motivated are you to do a good job?” and “I consistently put forth the maximum effort possible at work.”

Researchers have made steady progress in the development and validation of the MAQ. This process takes some time because construct validation requires a process of bootstrapping in which the theory in question is tested at the same time that the measure of the theory is tested (Nunnally & Bernstein, 1994, p. 311). The construction of the questionnaire and its items considered three issues: (1) the definition of the concept, (2) the specific items to assess each concept, and (3) the assessment of the connection between the concepts. Once these issues were resolved as dictated by Pritchard and Ashwood’s (2007) motivation theory, development began with the creation of an item pool for each of the four main subsections. Items written were both positive and negative (i.e., reverse coded), and used a five-point Likert response scale. Using both types of items helps to increase methodological heterogeneity, or measuring attributes in different ways (Nunnally & Bernstein, 1994, p. 313).

Initial pilot testing consisted of informal interviews in order to identify any problems with wording or general understanding. As a result, some different terminology is used in the questionnaire than is used in the motivation theory framework. For

example, the terms *effort* and *productivity* are used in the questionnaire instead of *actions* and *results*. But, the terms *evaluations*, *outcomes*, and *need satisfaction* are used in both the questionnaire and the motivation theory.

Next, items were administered to a sample of undergraduate psychology and management students who met the requirements of working at least 10 hours per week, and of being employed at their current organization for at least 3 months. Criteria for item retention were: (1) an internal consistency estimate of .85 or greater when the item is present; (2) varying sentence structure; (3) variance greater than .80; (4) a low readability level; and (5) a low amount of skew. As a result, 10 or 11 items were retained for each of the four measured relationships of the motivation theory (i.e., *effort-to-productivity*, *productivity-to-evaluations*, *evaluations-to-outcomes*, and *outcome-to-need satisfaction*).

The next step in the development process was to limit the number of items used to measure each link or relationship to five, a decrease from 10 to 11. Several decisions had to be made about items in order to choose which to include. Because of the very high coefficient alpha reliability's and very high standard deviations of nearly all questionnaire items, it was difficult to develop criteria to determine which of the 10 or 11 items should be kept in the final version. Again, all alpha and variance values were high, so decisions were made based on the clarity of the items, readability, having at least one reverse scored item per subscale, and having different response formats (*Always-Never*, *Strongly Disagree-Strongly Agree*, etc.). Reliability analyses were performed on the new sets of five items to ensure that coefficient alpha values were still high. The sample from which data were used to complete reliability analyses was the same sample of undergraduate psychology and management students who worked at least 10 hours per

week and were employed at their current organization for at least 3 months. The lowest obtained coefficient alpha was .82.

Next, development focused on writing items to measure the proposed determinants of the four connections of Pritchard and Ashwood's (2007) theory of motivation. Because of questionnaire length, the decision was made to use one item for each determinant to be measured (see Appendix E). Thus, these items were written so that the respondent could quickly and easily read through the list; items were given identical rating scales in an attempt to further facilitate responding. Some items were negatively worded to eliminate monotony and to aid in the identification of response bias such as fatigue and faking. This final set of items was pilot tested on a convenience sample of 30 people, who were then interviewed to ensure the clarity and understanding of the items. All respondents indicated that items were clear, and demonstrated adequate understanding.

Pilot testing of the complete version of the MAQ (with all eight subsections, plus the *overall motivation* subsection) consisted of administration to a new sample of 310 undergraduate students. Demographic information was also collected. In addition two extra items were added, one to make sure that the respondent could read well enough to understand and complete the questionnaire and one to make sure that respondents understood the connections being measured. The data indicated that respondents could understand the questionnaire and they understood the connections.

Also based on the data from this sample, coefficient alpha internal consistency reliabilities were calculated for each subscale. These can be found in Table 1. Estimates ranged from .76 to .89. Although these internal consistency estimates are high, one

estimate did not reach the .80 standard that is generally considered to be high reliability (Nunnally & Bernstein, 1999). Therefore a sixth item was added to the productivity-to-evaluations scale in an effort to raise its reliability.

Because of the favorable results of this administration of the questionnaire, the next step was to conduct a test-retest reliability study using a new sample. The final sample of participants who responded to both administrations of the questionnaire consisted of 105 undergraduate students. Administrations were separated by a two-week interval. During the second administration items were added in order to account for “true change” experienced that would affect motivation. Examples of variables for which true change was measured include changes in position (e.g., promotion), the organization (e.g., restructuring), or life (e.g., divorce).

Table 1:
Internal Consistency Reliability of MAQ Subscales (Pilot Sample)

Subscale	N	k	α
Overall Motivation	309	7	.91
Action-to-Results	305	5	.82
Results-to-Evaluations			
Formal Evaluations	309	5	.81
Self Evaluations	308	5	.76
Informal Evaluations	309	5	.80
Evaluations-to-Outcomes			
Formal Evaluations	308	5	.84
Self Evaluations	309	5	.81
Informal Evaluations	308	5	.89
<u>Outcomes-to-Needs Satisfaction</u>	<u>308</u>	<u>5</u>	<u>.84</u>

N=number of respondents on which the estimate is based; k=number of items that comprise the subscale; α =coefficient alpha reliability estimate
Results are based on a sample of 310 undergraduate students.

Coefficient alpha reliability estimates for each subscale and for each administration, as well as for the current administration, are provided in Table 2. And, test-retest reliabilities are provided in Table 3. Table 3 includes test-retest reliabilities using all data as well as test-retest reliabilities calculated after removing those respondents who indicated that they had experienced some sort of true change in their position, organization, or life. The obtained reliability estimates ranged from .55 to .79, which are sufficiently high estimates for test-retest reliabilities (Nunnally & Bernstein, 1994).

Table 2:
Internal Consistency Reliability of MAQ Subscales (Test-Retest Sample)

Subscale	k	α_1	α_2	α_3
Overall Motivation	6	.86	.89	.91
Action-to-Results	5	.78	.85	.74
Results-to-Evaluations				
Formal Evaluations	6	.89	.85	.83
Self Evaluations	6	.82	.78	.83
Informal Evaluations	6	.84	.84	.85
Evaluations-to-Outcomes				
Formal Evaluations	5	.81	.87	.83
Self Evaluations	5	.78	.82	.79
Informal Evaluations	5	.85	.83	.85
Outcomes-to-Needs Satisfaction	5	.87	.85	.87

k=number of items in the subscale; α_1 =coefficient alpha reliability calculated using data from the first administration of the questionnaire; α_2 =coefficient alpha reliability calculated using data from the second administration of the questionnaire; α_3 =coefficient alpha reliability for the current study

Table 3:
Test-Retest Reliability of MAQ Subscales

Subscale	k	All Data	Data with no “true change”
		r ₁₂	r ₁₂
Overall Motivation	6	.89	.82
Action-to-Results	5	.55	.55
Results-to-Evaluations (mean of 3 scales)	6	.68	.62
Evaluations-to-Outcomes (mean of 3 scales)	5	.66	.78
Outcomes-to-Needs Satisfaction	5	.67	.79

k=number of items that comprise the scale
Results are based on a sample of undergraduate students.

The motivation measure completed by participants’ supervisors was not the extended version of the MAQ. Rather, supervisors completed just the seven item overall motivation subscale. The wording of the subscale was altered slightly to reflect the fact that items referred to the participant and not to the supervisor completing the questionnaire (see Appendix G). The obtained coefficient alpha reliability for this scale was 0.92.

CHAPTER FIVE: RESULTS

In order to determine the required minimum sample size for this study, a power analysis was performed. Unfortunately, the lack of previous research examining the relationship between discrimination and motivation disallows reliance on existing average effect sizes for this relationship. Therefore, a power analysis was computed for small effect sizes (Cohen, Cohen, West, & Aiken, 2003). Based on the power analysis results, in order to find a small effect (.10) at the .05 significance level with a power level of .80, the minimum number of participants required for this study is 158.

The actual number of participants in this study was 170. All participants were female. Participants were required to be currently employed and working at least 10 hours per week for pay (i.e., volunteer work did not count as employment). The majority of participants (95%) were undergraduate students who received course credit for completion of the study measures. The remaining 5% were non-students who completed the measures voluntarily and received no compensation for their participation.

Of the 170 participants, 64.4% identified their race as White, 7.9% as Black, 5.1% as Asian, 13.6% as Hispanic, and the remaining 9% identified themselves as mixed race or as “other”. Also, 82.5% identified themselves as aged 18-24 while the remaining participants were over age 24. And, 62.7% had some college education, 23.2% had an A.A. or other 2-year degree, 5.6% had a Bachelor’s degree, 2.3% had a Master’s degree, and 5.7% chose not to respond.

As anticipated, a much greater response came from participants than from supervisors. A total of 37 supervisor questionnaires were completed; this was 22% of the sample. The actual response rate is not known because it is not known how many of the

participants asked their supervisors to complete the instruments. One supervisor provided overall motivation data but no performance data. A response rate cannot be calculated for participants because it is unknown how many chose not to participate in the study, but 1.7% began the study and quit before completing it ($n = 3$).

Table 4 presents the coefficient alpha reliabilities, means, standard deviations, and correlations among the study variables.

Hypotheses 1a-c predicted that there would be significant negative relationships between perceived discrimination and action-to-result connections, result-to-evaluation connections, and evaluation-to-outcome connections, respectively. As can be seen in Table 4, hypothesis 1a was supported ($r = -.15, p < .05$). However, the correlations between perceived discrimination and result-to-evaluation connections ($r = -.08, n.s.$) and evaluation-to-outcome connections ($r = .03, n.s.$) were not significant and therefore hypotheses 1b and 1c were not supported. Using the measure of overall motivation, motivation decreased as perceived discrimination increased ($r = -.26, p < .01$). And finally, using the supervisors' ratings of overall motivation, there was no relationship between participants' perceived discrimination and motivation ($r = -.01, n.s.$). Support for this set of hypotheses is mixed. Perceived discrimination appears to have the largest impact on employees' action-to-result connections, and this could be driving the significant relationship between perceived discrimination and self-ratings of overall motivation.

Hypotheses 2a-c predict that race will moderate the relationships between perceived discrimination and the motivation connections. Hypotheses 3a-c predict that race will moderate the relationships between in-group identification and the motivation

connections. And, hypotheses 4a-c predict that work locus of control will moderate the relationship between perceived discrimination and the motivation connections.

Hypotheses 2a through 4c were tested using multiple regression analysis. The appropriate interactions were calculated by first centering relevant variables and then entering the centered cross-products as the interaction term in the regression equations. Significant beta weights for interaction terms indicated support for the moderating variables. For hypotheses 2a through 2c, rather than examining the moderating impact of multiple races, participants' races were coded as either minority ($n = 54$) or non-minority ($n = 114$) status. The reason this was done was to increase the power to detect a significant interaction. Research using Monte Carlo simulations has shown that when subgroup sample sizes are unequal, the power to detect significant interactions is reduced (Aguinis & Stone-Romero, 1997; Stone-Romero, Alliger, & Aguinis, 1994). A 0.5 proportion (equal subgroup sample sizes) maximizes power, and a smaller proportion than this reduces the power. In this study the proportion of minority group members to total sample size was 0.32.

Hypotheses 2a through 2c predicted that race would moderate the relationships between perceived discrimination and the motivation connections. To test these hypotheses, race was dummy coded (non-minority status = 0, minority status = 1) and perceived discrimination was centered. Then race and perceived discrimination were entered as predictors in the first model, while race, perceived discrimination, and their cross-product were entered as predictors in the second model. In all three hypotheses, the non-significant beta weights for the interaction terms indicated that the hypotheses were

Table 4:
Coefficient Alphas, Means, Standard Deviations, and Correlations among Study Variables

<i>Variable</i>	α	M	SD	<i>n</i>	1	2	3	4	5	6	7	8	9	10	11
1. Perceived Discrimination	.96	2.09	0.95	170	----	-.07	.24**	-.03	-.26**	-.15*	-.08	.03	-.12	-.01	-.04
2. In-group Identification	.84	4.27	0.59	170		----	-.25**	.13	.21**	.29**	.34**	.28**	.27**	.15	.08
3. ^a Locus of Control	.82	2.42	0.54	170			----	.11	-.41**	-.36**	-.33**	-.23**	-.21**	.05	.11
4. Race (minority = 1)	---	0.32	0.47	168				----	-.05	.02	-.07	-.03	-.05	.14	.11
5. Overall Motivation	.91	3.89	0.74	170					----	.36**	.32**	.35**	.48**	.48**	.33*
6. Action-to-Results	.74	4.20	0.50	170						----	.53**	.38**	.31**	.25	.16
7. Results-to-Evaluations	.92	3.72	0.58	170							----	.61**	.43**	.09	.21
8. Evaluations-to-Outcomes	.90	3.45	0.61	170								----	.55**	.27	.29
9. Outcomes-to-Needs Satisfaction	.87	3.72	0.77	169									----	.22	.07
10. Supervisor rating of Motivation	.92	4.31	0.61	37										----	.85**
11. Supervisor rating of Performance	.88	4.35	0.51	37											----

α =coefficient alpha reliability estimate

* $p < .05$

** $p < .01$

^aLocus of control is measured using a 6-point rating scale.

Note. Correlations for variables 1 through 9 are based on data from 170 to 168 participants; correlations for variables 10 and 11 are based on data from 37 participants.

not supported (see Table 5). Additionally, race did not moderate the relationship between perceived discrimination and overall motivation (see Figure 6).

Hypotheses 3a through 3c suggest that in-group identification will have a significant interaction with perceived discrimination to predict the components of motivation. Again, these hypotheses were not supported (see Table 6). Perceived discrimination and in-group identification also did not interact to predict overall motivation (see Figure 7).

Hypotheses 4a through 4c suggest that locus of control will moderate the relationships between perceived discrimination and each component of motivation. None of these hypotheses were supported (see Table 7). Additionally, locus of control did not moderate the relationship between perceived discrimination and overall motivation (see Figure 8).

Hypotheses 5a-e predicted that there would be significant positive relationships between performance and overall motivation, action-to-result connections, result-to-evaluation connections, evaluation-to-outcome connections, and outcome-to-need satisfaction connections, respectively. As can be seen in Table 4, hypothesis 5a was supported ($r = .33, p < .05$); there was a significant positive relationship between performance and overall motivation. However, the correlations between performance and result-to-evaluation connections ($r = .16, n.s.$), evaluation-to-outcome connections ($r = .21, n.s.$), and outcome-to-need satisfaction connections ($r = .29, n.s.$) were not significant and therefore hypotheses 5b through 5e were not supported.

Table 5:
Summary of Regression Analyses for Hypotheses 2a, 2b, and 2c

<i>Variable</i>	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
H2a: Action-to-Result Connections						
Race	.104	.095	.084	.106	.095	.086
Perceived Discrimination	-.085	.049	-.135	-.106	.060	-.167
Race x Perceived Discrimination				.062	.104	.056
R^2		.026			.028	
F for change in R^2		2.24			.352	
H2b: Result-to-Evaluation Connections						
Race	-.021	.103	-.016	-.020	.103	-.015
Perceived Discrimination	-.062	.053	-.091	-.071	.065	-.105
Race x Perceived Discrimination				.028	.112	.024
R^2		.008			.009	
F for change in R^2		.701			.061	
H2c: Evaluation-to-Outcome Connections						
Race	-.011	.116	-.007	-.010	.116	-.007
Perceived Discrimination	.020	.060	.026	.017	.073	.023
Race x Perceived Discrimination				.007	.127	.005
R^2		.001			.001	
F for change in R^2		.061			.003	

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

Table 6:
Summary of Regression Analyses for Hypotheses 3a, 3b, and 3c

<i>Variable</i>	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
H3a: Action-to-Result Connections						
In-group ID	.211	.071	.226**	.233	.086	.250**
Race	.089	.094	.072	.092	.094	.074
In-group ID x Race				-.069	.152	-.042
R^2		.059			.060	
F for change in R^2		5.16**			.209	
H3b: Result-to-Evaluation Connections						
In-group ID	.276	.075	.276**	.268	.092	.268**
Race	-.045	.099	-.034	-.046	.100	-.035
In-group ID x Race				.025	.161	.014
R^2		.076			.076	
F for change in R^2		6.74**			.024	
H3c: Evaluation-to-Outcome Connections						
In-group ID	.265	.086	.235**	.213	.104	.189*
Race	-.042	.113	-.028	-.047	.113	-.032
In-group ID x Race				.161	.183	.081
R^2		.055			.059	
F for change in R^2		4.80**			0.77	

* $p < .05$

** $p < .01$

In-group ID=In-group (Gender) Identification

Table 7:
Summary of Regression Analyses for Hypotheses 4a, 4b, and 4c

<i>Variable</i>	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
H4a: Action-to-Result Connections						
WLOC	-.188	.061	-.238**	-.192	.061	-.244**
Perceived Discrimination	-.055	.049	-.087	-.058	.049	-.092
WLOC x Perceived Discrimination				.046	.065	.053
R^2		.075			.077	
F for change in R^2		6.72**			.486	
H4b: Result-to-Evaluation Connections						
WLOC	-.164	.066	-.193*	-.163	.067	-.193*
Perceived Discrimination	-.032	.053	-.047	-.031	.054	-.046
WLOC x Perceived Discrimination				-.006	.071	-.007
R^2		.044			.044	
F for change in R^2		3.86*			.008	
H4c: Evaluation-to-Outcome Connections						
WLOC	-.182	.075	-.191*	-.191	.075	-.201*
Perceived Discrimination	.050	.060	.065	.043	.060	.057
WLOC x Perceived Discrimination				.091	.080	.088
R^2		.034			.042	
F for change in R^2		2.98*			1.29	

* $p < .05$

** $p < .01$

Note: Work Locus of Control and Perceived Discrimination were centered at their means.

WLOC=Work Locus of Control

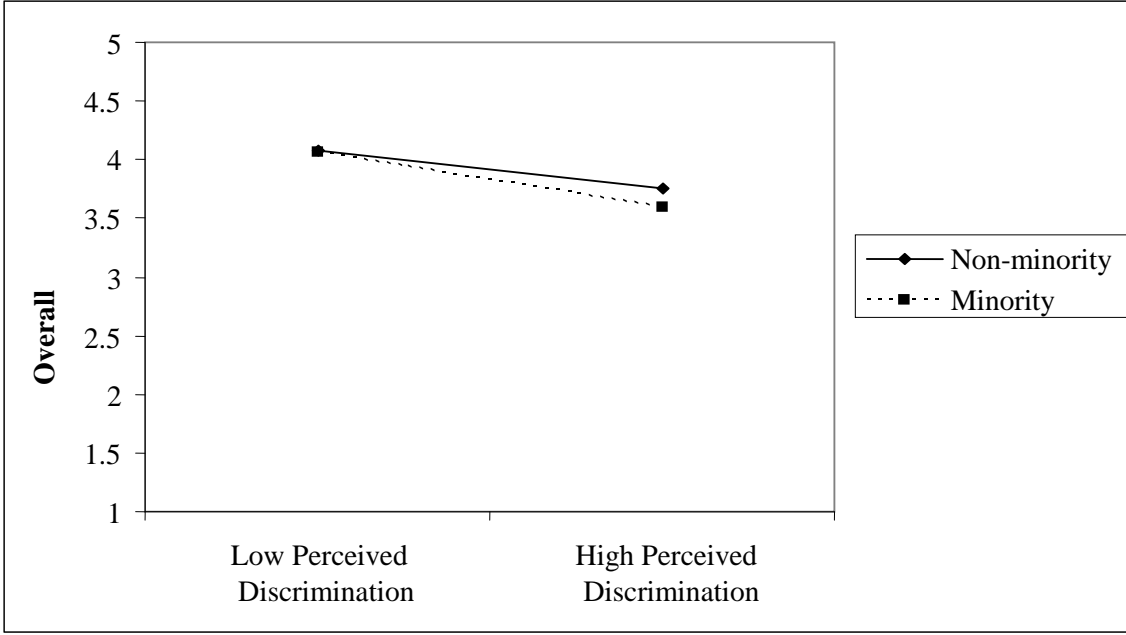


Figure 6. Plot of the Non-significant Interaction between Race and Perceived Discrimination

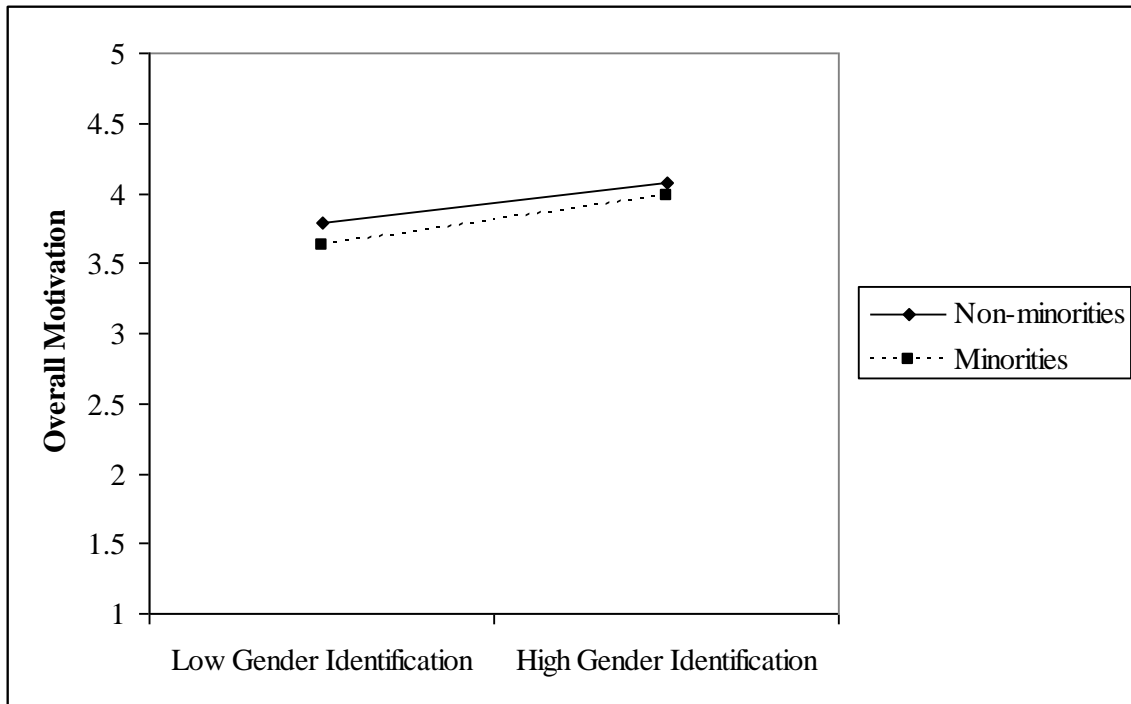


Figure 7. Plot of the Non-significant Interaction between Race and In-group Identification (i.e., Gender Identification)

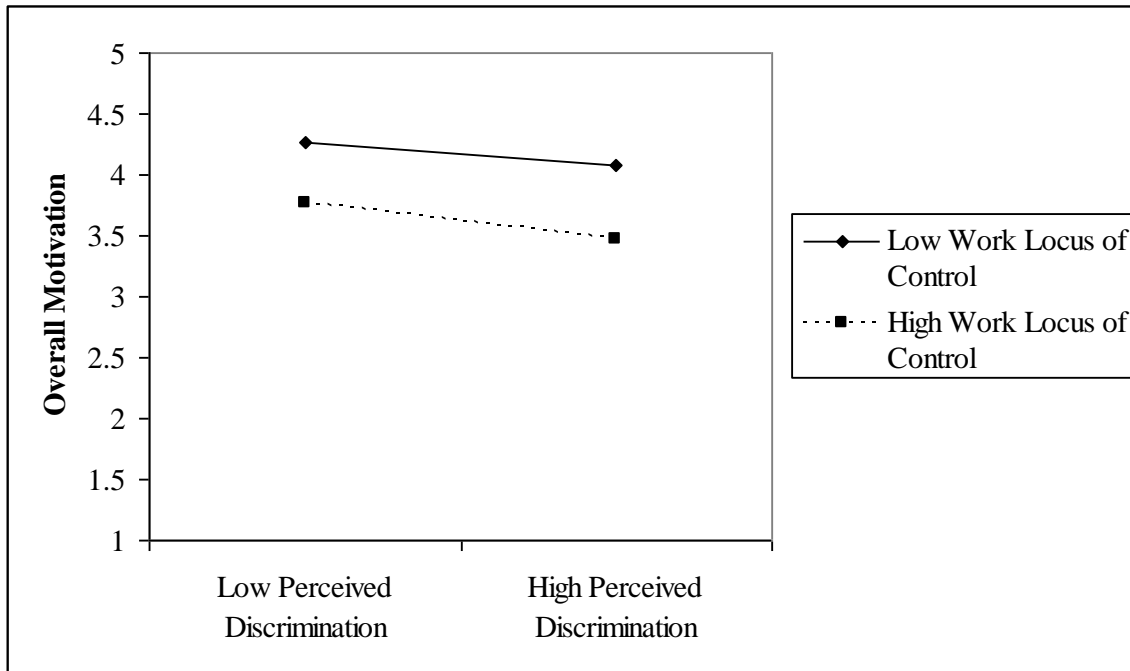


Figure 8. Plot of the Non-significant Interaction between Perceived Discrimination and Work Locus of Control

Hypotheses 6a-c predict that there will be a positive relationship between an individual's weakest motivation connection and a) participant self-ratings of overall motivation, b) supervisor ratings of overall motivation, and c) supervisor ratings of performance, and that this relationship will be stronger than that between a) self-rated motivation, b) supervisor-rated motivation, and c) performance and the mean of all four connections. If the correlations between the weakest connection and participant-rated overall motivation, supervisor-rated overall motivation, and performance are significantly larger than the correlations between the average of all four connections and participant motivation, supervisor motivation, and performance ratings, then support will have been found for hypothesis six.

To test hypothesis 6a, I first created a variable to indicate which connection was the weakest (i.e., had the lowest mean score) for each individual. This revealed that of 170 total

participants, 11 identified actions-to-results as their weakest connection, 36 identified results-to-evaluations, 82 identified evaluations-to-outcomes, and 34 identified outcomes-to-satisfaction. The remaining 7 participants had two or more connections that were equal and lowest, and so for simplification they are excluded from this analysis. I then correlated participants' weakest connection with self-ratings of overall motivation. Finally I compared this correlation to the correlation between the average score of all four connections and self-ratings of overall motivation (see Table 8).

Table 8:
Motivation Connection Correlations with Performance ($n = 170$)

<i>Variable</i>	M	SD	1	2	3	4	5	6	7
1. Weakest Motivation Connection	3.41	0.77	-----	.73**	.36**	.30**	.74**	.76**	.46**
2. Average of All Connections	3.77	0.48		-----	.67*	.81**	.83**	.79**	.49**
3. Action-to-Results	4.20	0.50			-----	.53**	.38**	.31**	.36**
4. Results-to-Evaluations	3.72	0.58				-----	.61**	.43**	.32**
5. Evaluations-to-Outcomes	3.45	0.61					-----	.55**	.35**
6. Outcomes-to-Needs Satisfaction	3.72	0.77						-----	.48**
7. Overall Motivation (Participant Ratings)	3.89	0.74							-----

** $p < .01$

Note. All correlations are based on a sample size of $n = 163$.

In order to compare the “weakest link” correlations to the average motivation correlations, I used Meng, Rosenthal, and Rubin’s (1992) formulas for comparing correlated correlation coefficients. This method relies on Fisher’s z transformations of correlations, and provides formulas to determine if one correlation is significantly different than another correlation (1992, p. 173). Hypothesis 6a predicted that the correlation between weakest

motivation connections and participant ratings of motivation would be significantly greater than the correlation between the average of the motivation connections and participant ratings of motivation. Using Meng et al.'s (1992) method, this hypothesis was not supported. The pattern of correlations ($r = .46$ and $r = .49$, respectively) were opposite that predicted and were not significantly different ($z = -0.46$, *n.s.*).

In order to test hypotheses 6b and 6c, a method parallel to that described for hypothesis 6a was used. However, because these hypotheses rely on supervisor ratings, the sample size on which these analyses are based falls to 37. Again, I first created a variable to indicate which connection was the weakest (i.e., had the lowest mean score) for each individual. This revealed that of 37 total participants, 3 identified actions-to-results as their weakest connection, 10 identified results-to-evaluations, 19 identified evaluations-to-outcomes, and 5 identified outcomes-to-satisfaction. I then correlated participants' weakest connection with supervisor ratings of overall motivation and performance. Finally, I compared this set of correlations using participants' weakest connection with correlations using the average score of all four connections (see Table 9). If the correlations between the weakest connection and participant-rated overall motivation, supervisor-rated overall motivation, and performance are significantly larger than the correlations between the average of all four connections and participant motivation, supervisor motivation, and performance ratings, then support will have been found for hypothesis six.

Hypothesis 6b predicted that the correlation between weakest motivation connections and supervisor ratings of motivation would be significantly greater than the correlation between the average of the motivation connections and supervisor ratings of motivation. Using Meng et al.'s (1992) method, this hypothesis was not supported. The correlations ($r = .22$ and $r = .24$, respectively) were not significantly different ($z = -0.30$, *n.s.*).

And finally, hypothesis 6c predicted that the correlation between weakest motivation connections and supervisor ratings of performance would be significantly greater than the correlation between the average of the motivation connections and supervisor ratings of performance. Using Meng et al.'s (1992) method, this hypothesis was not supported. The correlations ($r = .27$ and $r = .22$, respectively) were not significantly different ($z = 0.76, n.s.$). Overall, support was not found for the sixth set of hypotheses.

Table 9:
Motivation Connection Correlations with Performance ($n = 37$)

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Weakest Motivation Connection	3.39	0.61	-----	.92**	.53**	.80**	.97**	.75**	.47**	.22	.27
2. Average of All Connections	3.88	0.53		-----	.77*	.84**	.89**	.85**	.54**	.24	.22
3. Action-to-Results	4.30	0.52			-----	.64**	.47**	.56**	.43**	.26	.16
4. Results-to-Evaluations	3.77	0.61				-----	.71**	.49**	.24	.10	.21
5. Evaluations-to-Outcomes	3.53	0.68					-----	.74**	.51**	.24	.29
6. Outcomes-to-Needs Satisfaction	3.92	0.70						-----	.63**	.22	.07
7. Overall Motivation (Participant Ratings)	4.12	0.72							-----	.48**	.33*
8. Overall Motivation (Supervisor Ratings)	4.33	0.61								-----	.85**
9. Supervisor rating of Performance	4.35	0.51									-----

* $p < .05$

** $p < .01$

Note. All correlations are based on a sample size of $n = 37$.

Finally, hypothesis 7 predicts that motivation will mediate the relationship between perceived discrimination and performance. The available sample size for testing this hypothesis is $n = 37$, which is the number of participants with performance data available. In order to test this hypothesis, I used the method suggested by Baron and Kenny (1986). Although this is the

generally accepted method for testing for mediation, it is important to note that valid inferences can only be made about the results of this analysis when data are from true experiments (Stone-Romero & Rosopa, 2004). Because this is a non-experimental study, results of the analysis should be interpreted with caution.

First, the independent variable (perceived discrimination) must be correlated with the mediating variable (motivation). Second, the independent variable (perceived discrimination) must be correlated with the dependent variable (performance). And third, the dependent variable must be regressed onto both the independent variable and the mediating variable. In order for mediation to be present, the first two equations must be significant; in the third equation motivation (the mediator) must be significant; and, the effect of perceived discrimination on performance must be less in the third equation than in the second equation. If there is no effect of perceived discrimination in the third equation then there is perfect mediation.

I first tested this hypothesis using the measure of overall motivation completed by participants as the mediating variable. In the first step, when motivation is regressed onto perceived discrimination, discrimination was significant ($\beta = -0.39, p = .016$). In the second step, when performance is regressed onto perceived discrimination, discrimination is not significant ($\beta = -.04, n.s.$). Because the required condition of significance was not met for the second step, this indicates that motivation does not mediate perceived discrimination and performance.

As an alternative indicator of motivation, I used the score for the subscale that was an individual's "weakest link" in their motivation chain. In other words, following the logic of Pritchard and Ashwood's (2007) motivation theory, for each participant I used the score from whichever motivation subscale had the lowest mean. Using this measure of motivation, regressing motivation onto perceived discrimination resulted in a non-significant relationship,

although it approached significance ($\beta = -0.29, p = .08$). Regressing performance onto perceived discrimination yielded the same non-significant beta weight ($\beta = -.04, n.s.$). Again, because this second requirement was not met, the test of mediation was not supported using participants' weakest motivation link as the indicator of motivation.

CHAPTER SIX: DISCUSSION

In this study, I wanted to determine if there was a relationship between perceived gender discrimination and work motivation, and between work motivation and performance. My first hypothesis was partially supported. I found a significant negative relationship between perceived discrimination and participant self-ratings of overall motivation as well as a significant negative relationship between perceived discrimination and action-to-result connections. Although I cannot infer causality from this correlational study, the results suggests that as employees' perceptions that they are the victim of gender discrimination increase, their beliefs that the actions they take are tied to the results they produce may decrease. This is consistent with realistic group conflict theory to the extent that women have to compete with men for resources and are not getting the resources they need. Then the inequity in resource distribution can affect female employees' abilities to convert their actions into results.

Despite the initial support found for my first set of hypotheses, the correlations between perceived discrimination and both results-to-evaluation and evaluation-to-outcome connections were not significant. One reason for these results might be that employees feel that perceived gender discrimination is only related to their action-to-result connections. Then once they allow this relationship they are then unwilling to allow the perceived discrimination to be related to other aspects of their work motivation. A second possible explanation is that employees attribute the perceived discrimination to the overall organization rather than to a person (i.e., a supervisor) whom they know personally. Then the relationship between action-and-result connections and discrimination would be a function of employees attributing their missing resources (e.g., training, supplies, information) to a faceless entity. Conversely, a relationship between result-to-evaluation connections and evaluation-to-outcome connections would require employees to feel

that a specific individual—the supervisor or coworker who is evaluating their results—is in some way related to their perceived discrimination. Although a supervisor does have control over action-to-result resources, it is feasibly easier to blame a lack of supplies, training, etc. on the organization or the budget than it is to blame a poor evaluation on the organization. If this is true, then it is possible that relating perceived discrimination to the overall organization gives employees an avenue to excuse their low motivation without accusing a coworker or supervisor of giving unfair evaluations.

A third potential reason for the lack of support of hypotheses 1b and 1c is range restriction. Range restriction can occur with the use of a restricted sample rather than a sample that represents the entire range of possible responses in the population. In this study it is likely that range restriction is present given the heterogeneity of the participants, the small variances of study variables, and the skewness of the distribution of scores on these variables. The subscales of the motivation measure, the in-group identification measure, the work locus of control measure, and the measures of supervisor ratings of motivation and performance are all variables potentially affected by range restriction (see standard deviations in Table 4). Unfortunately, the presence of and extent of range restriction cannot be determined because the standard deviations in an unrestricted sample are not known. Range restriction could account for the non-significant relationships because if there is little variance or range for predictor and/or criterion variables, then the magnitude of the observed relationship will be attenuated (Gatewood & Feild, 2001; Nunnally & Bernstein, 1994). I would expect that a population with a larger range of responses on these variables would include individuals who are non-students and who are employed full-time in the workforce.

My second set of hypotheses suggested that because racial minorities were subjected to more discrimination over their lifetime (i.e., are historically disadvantaged) and were more sensitive to it, race would moderate the relationship between perceived gender discrimination and work motivation. I expected women who are also racial minorities to conform to the rejection-identification model so that perceived discrimination would have a direct negative effect on work motivation. Conversely, I expected women who were non-racial minorities to conform to the discounting perspective. In other words, I expected a buffering effect such that perceived discrimination did not effect their motivation. This hypothesis was not supported for any of the motivation connections or for overall motivation.

One potential reason this relationship was not found is the complex interaction between race and gender. Race was intended to account for participants being historically disadvantaged. However, it is possible that the women in this study also considered themselves historically disadvantaged and therefore the impact of race was confounded with gender. In fact, other researchers have commented on the special circumstance of being disadvantaged due to interactive effects of gender and race (King, 2003). The term *ethnogender* has been created to refer to this circumstance (Jeffries & Ransford, 1980). In her study, King (2003) found that African American women placed in an ambiguous situation of discrimination were more likely to attribute the behavior to racial or ethnogender discrimination than they were to gender discrimination. This supports other research that has shown that individuals are most likely to identify with their most oppressed stigma (e.g., identify with race over gender). Future research should consider the concept of ethnogender discrimination, and should also examine the differences between women and men and attempt to parse out these relationships.

A second potential reason this moderating effect was not found is the unequal number of majority and minority group members. There were unequal proportions of minority and majority group respondents, and when subgroup sample sizes are not equal then the ability of a test to detect significant interactions is diminished. As can be seen in Figure 6, although differences did not approach statistical significance, the trend in the data was in the hypothesized direction. Combined with a larger overall sample size, equal subgroup samples could impact the outcome of this analysis (Aguinis & Stone-Romero, 1997; Aguinis & Pierce, 1998).

Consistent with research findings by Schmitt et al. (2002) and others (Branscombe et al., 1999; McCoy & Major, 2003; Schmitt & Branscombe, 2002; Schmitt et al., 2003), my third set of hypotheses predicted that in-group identification (or, more specifically, gender identification) would act as a buffer and alleviate the negative relationship between perceived discrimination and work motivation. This hypothesis was also not supported for any of the motivation connections, nor was it supported for overall motivation. In-group identification did not buffer the negative relationship between discrimination and motivation, suggesting that either the negative relationship was too strong to be buffered or that gender identification is not a sufficiently personally meaningful construct to buffer this relationship.

My fourth hypothesis predicted that work locus of control would moderate the relationship between perceived discrimination and work motivation. Although work locus of control was correlated with both perceived discrimination ($r = .24, p < .01$) and overall motivation ($r = -.41, p < .01$), it did not moderate the relationship between the two. I found this result to be surprising because past research examining locus of control supported its role in expectancy theories (Spector, 1982). However, no research exists that examines locus of control as a moderator of perceived discrimination and motivation.

In this study locus of control was intended to account for two very different potential reactions to perceived discrimination. If I had directly asked participants how they would (or did) react instead of using locus of control to indirectly measure this, then perhaps this set of hypotheses would have been supported. Furthermore, it is possible that measuring work locus of control is not the same type of locus of control that would account for moderating perceived discrimination and motivation. Because perceived discrimination can be a part of all aspects of one's life and not just work, using a general measure of locus of control might have returned different results. Similarly, using a discrimination-specific measure of locus of control might have yielded different results.

Hypotheses 5a-e predicted a significant relationship between overall motivation and performance, and between the motivation connections and performance. The only correlation that achieved significance was that between overall motivation and performance. However, all connections except outcome-to-needs satisfaction were sufficiently large to have practical significance. In fact, the most probable explanation for the lack of statistical significance is the small sample size ($n = 37$) and corresponding lack of power to detect significant effects. With a larger sample the same effect sizes would easily achieve significance.

The theory of motivation used to form the hypotheses in this study (Pritchard & Ashwood, 2007) conceptualizes motivation as a chain of four connections that are linked together. A main principle of this theory is that motivation cannot be any stronger than the weakest link or connection in the chain. Therefore hypotheses 6a-6c tested this principle by predicted that individuals' weakest connection would correlate more strongly with performance, supervisor-rated motivation, and self-rated motivation than would the mean of all connections.

Support was not found for these hypotheses, and the trends in the data were in the opposite direction than was predicted for two of the three hypotheses.

These results do not support the motivation theory. They indicate that all motivation connections are important for determining overall motivation and performance, and that the weakest connection does not appear to limit overall motivation. Rather than correlating the most strongly with performance and overall motivation, the weakest connection was highly correlated with each individual connection score, and especially with evaluation-to-outcome connections. This could indicate that employees place the greatest value on the outcomes they receive. Then the weakest link in their connection might limit the connection they make between their evaluations of their work and the outcomes they receive based on these evaluations. However, as can be seen in Table X, the largest number of participants indicated that the evaluation-to-outcome connection was their weakest connection ($n = 19$). Therefore it is possible that this outcome is a result of this larger number of respondents impacting observed relationships.

Another issue is present because participants were asked to have their supervisors provide ratings of motivation and performance. The response rate was only 22%. Participants willing to ask a supervisor to provide performance data might be more convinced of positive evaluations of their motivation and performance than participants who do not ask their supervisors. And if a participant did ask the supervisor might have chosen not to respond if the participant's performance and/or motivation is low. It is possible that a supervisor would be more willing to take the time to indicate superior performance and motivation than to indicate substandard performance and motivation. These possibilities are supported by the limited variability in supervisor ratings of performance and motivation, as shown in Table 4. Additionally, the

correlation between supervisor ratings of motivation and performance was very high ($r = .85, p < .01$), indicating that supervisors did not distinguish between the two very well.

Finally, the hypothesis that motivation would mediate the relationship between perceived discrimination and performance was not supported. Although the mediator in this equation was significantly related to the dependent variable, the independent variable could not drop to non-significance because there was no significant relationship between perceived discrimination and performance to begin with. Therefore this hypothesis was not supported. This conclusion holds whether motivation is operationalized as overall motivation (i.e., participants' self-responses) or as individuals' weakest motivational link. Again, the power to detect significant effects was limited in this hypothesis by the small sample size ($n = 37$). Future research should strive to obtain a greater number and broader range of supervisor responses to performance items.

Study Limitations

A limitation of this study is that direction of causality cannot be established. This is a major issue because while I predict that perceived discrimination impacts motivation, the opposite may easily be true. It is possible that someone with low motivation may be treated poorly and the employee could interpret this treatment as discrimination. But, as previously mentioned, the topic of perceived discrimination and motivation has received almost no research attention and so the first step is finding a relationship between the two variables (Aronson, Ellsworth, Carlsmith, & Gonzales, 1990). Future research can be conducted that attempts to determine causation, that characterizes the relationship more precisely, and that specifies boundary conditions (1990). Therefore, although this study is a correlational study and so cannot

determine causality, it is an appropriate first step in an area of research that has to date not been given any research attention.

Another limitation is the sample of undergraduate students who work at least 10 hours per week. Typically undergraduate students who are employed part-time do not have jobs that are related to their major or career of interest, or that are going to be important for their careers. The lack of importance or value placed on their current jobs could impact the results of this study. I took this into consideration and so included items about job value and importance to intended career (see Appendix I). Statistically controlling for these variables did not change the significance of any of the hypotheses tested. Controlling for age, tenure in organization, and education level also did not change the study outcomes. However, these results cannot necessarily be generalized to a sample of non-student working adults employed full-time in jobs that are a part of their career path.

I expect that a sample of adults working full-time would differ from the sample used in this study in several ways. It is likely that the full-time sample would hold positions that were a part of their long-term career path, and that they had invested a significant amount of time into obtaining. As such, this sample might be more tuned in to what is going on in their workplace, the climate of their organization, how motivated they are to perform their jobs, and how attuned they are to incidents of perceived discrimination in the workplace. I would expect this sample to be more likely to perceive gender discrimination and also to be more likely to demonstrate a negative relationship between it and their motivation. I would also expect the motivation of a sample of full-time working adults to have a stronger relationship with their performance. In a part-time, temporary job, an individual might be less likely to be attuned to their environment. And, if there are instances of perceived discrimination or decreased motivation a part-time

employee might be willing to overlook this either because they hold a job in which they do not have a vested interest. Alternatively, if the position is a first step in their career path, it is more likely that an undergraduate student eager to gain experience might be more willing to overlook problems in their workplace in order to keep their job and gain their desired experience. This sample of primarily 18-24 year old undergraduate female students will probably display a different pattern of results than a more representative sample of working adults, and future research would benefit from obtaining a more diverse sample.

One factor potentially impacting my ability to find support for hypotheses involving race is unequal subgroup sample sizes. Hypotheses 2a through 2c and hypotheses 3a through 3c all used race as a predictor in regression equations and required creating an interaction term using race for the equations. I attempted to create as equal sized subgroups as possible by dichotomizing participants into either minority or non-minority status. However, the number of minority respondents was not sufficiently large to generate equal subgroup sample sizes. In fact, the proportion of minority respondents was 0.32. It is possible that increasing the proportion of minority respondents to the maximum 0.50 would result in finding support for my second set of hypotheses because of the increase in power this would generate. An examination of the plot of the interaction between perceived discrimination and race (Figure 6) shows that, although non-significant, the trend in the data was in the hypothesized direction. Taking into further consideration the combined effects of range restriction and unequal subgroup sample sizes (Aguinis & Stone-Romero, 1997; Aguinis & Pierce, 1998), it is possible that a broader sample containing greater variance and a larger proportion of minority participants would result in the rejection of the null hypotheses for my second set of hypotheses.

Regarding hypotheses involving moderating variables, sample size is a limitation in this study. Although a power analysis was conducted to determine the minimum required number of participants, a Monte Carlo simulation conducted by Aguinis and Stone-Romero (1997) demonstrated the need for an increased sample size in order to have enough power to detect significant interaction effects. An increased sample size might have resulted in more significant findings. While the obtained sample size of 170 participants is rather large, future research should take this limitation into consideration.

Monomethod bias, or common method variance (CMV) is another limitation of this study. Much of the data was collected via self-report. Therefore observed relationships could be inflated because of the influence of common method variance. However, Spector (2006) argues: “An important issue we quickly confront when dealing with CMV concerns what we mean by a method. Campbell and Fiske (1959) noted that different item formats within a questionnaire could be considered different methods in that there can be CMV attributable to each format” (p. 227). Then following this reasoning CMV will be of limited concern because, as mentioned above, the motivation questionnaire was specifically developed to use a variety of item formats. Each subscale is composed of both positive and reverse coded items, as well as a variety of Likert-type response scales. Furthermore, two of the three “major” variables in this study are suitable only to be measured via self-report. Perceived discrimination is a variable that specifically addresses the subjective opinion of the respondent. And, motivation is a process occurring within an individual and as such is best assessed by that individual. In this study, overall motivation measured with participant responses and overall motivation measured with supervisor responses were highly correlated ($r = .48, p < .01, n = 37$). This indicates that supervisor and participant responses were similar.

Implications for Theory and Future Research

The first set of hypotheses were consistent with Weiner's (1985) attribution theory; perceived discrimination—an external cause—appears to be related to decreased motivation. This conforms to Weiner's perspective that “the structure of causal thinking is next related to emotion and motivation” (1985, p. 549). The results of this study also lend support to realistic group conflict theory inasmuch as workplace competition over scarce resources is related to decreased motivation. Also supporting this theory is the fact that the component of motivation most strongly related to perceived discrimination was the action-to-result connections. This supports realistic group conflict theory because the determinants of this connection specifically involve the availability of resources, including personnel, training, time, supplies, materials, equipment, etc.

The lack of support for my third set of hypotheses translated to a surprising lack of support for social identity theory or the two perspectives that were built off of social identity theory (SIT)—the discounting and rejection-identification perspectives. SIT suggests that when the majority discriminates against a minority member's group the result is that the minority member has increased in-group identification (Branscombe, Schmitt, & Harvey, 1999). However, gender identification was not significantly correlated with perceived discrimination ($r = -0.07, n.s.$), suggesting that women higher in gender identification were no more likely to perceive gender discrimination in the workplace than women low in gender identification.

It is possible that in the face of potential discrimination, the female participants of this study chose to identify with some other identity or feature so as to not feel as though they belong to the discriminated against group (i.e., women). Then by not perceiving that they are being

impacted by gender discrimination they are protecting their work motivation. This interpretation would be consistent with social identity theory, which maintains that people strive to attain and/or maintain a positive social identity (Wolfe & Spencer, 1996; Phinney, 1990).

Branscombe and colleagues' rejection-identification perspective did not receive support in this study, either. This perspective suggests that the direct negative effect of perceived discrimination on motivation is alleviated by in-group identification. But results here did not find a significant interaction between perceived discrimination and in-group identification. Results only supported the direct negative relationship between perceived discrimination and work motivation. This direct negative relationship equates to a lack of support for Crocker and Major's (1989) discounting perspective (see Figure 2), which would require a *positive* relationship between perceived discrimination (the negative event) and motivation (the psychological construct). Although several researchers have found simultaneous support for the discounting and rejection-identification perspectives by accounting for historical disadvantage (Branscombe et al., 1999; McCoy & Major, 2003; Schmitt & Branscombe, 2002), this was not the case in the present study. Race was used as a proxy for historical disadvantage, or belonging to a group for which prejudice is pervasive and stable (Branscombe et al., 1999). However, no relationships examined in this study were found to be moderated by race. It is possible that because the participants in this study were all women that historical disadvantage associated with being a member of this gender group was confounded with historical disadvantage associated with being a member of a racial minority group. Future research should examine race as a moderator of perceived discrimination and motivation using a sample of both men and women and measures of both gender identification and ethnic identification to attempt to examine this.

Finally, my fourth set of hypotheses were not supported despite the fact that locus of control was significantly related to both perceived discrimination and work motivation (see Table 4). Work locus of control did not moderate the discrimination-motivation relationship. Use of the locus of control construct was intended to account for individuals who view the discrimination as an event outside of their control (an external locus of control) versus those who view the discrimination as something that they can control (and internal locus of control). Interestingly those with a more internal locus had greater overall motivation ($r = -0.41, p < .01$). This is consistent with previous research that examined the relationship between locus of control and motivation (Spector, 1986). Also interesting is the result that those with a more *external* locus perceived greater discrimination in the workplace. This result suggests that locus of control might be a useful construct for studying differences in how individuals respond to discrimination. Future research should further examine this relationship.

Future researchers should also focus on replicating and extending results to other important organizational outcomes in addition to motivation. Furthermore, this study would have benefited by measuring the number of hours worked by participants in their current jobs. This information could have been used as a covariate, potentially allowing for other hypothesized relationships to be found in the data. Therefore future researchers should take this into consideration. Additionally, future researchers should strive to obtain large samples of participants and supervisors who represent a range of motivation and performance levels. And, researchers should strive to obtain equal subgroup sample sizes. These methodological improvements will enhance researchers' statistical power to detect significant effects. This is important so that the role of perceived discrimination in the workplace and its relationship to

motivation and performance can be understood and so employers can take steps to counteract these relationships.

Implications for Practice

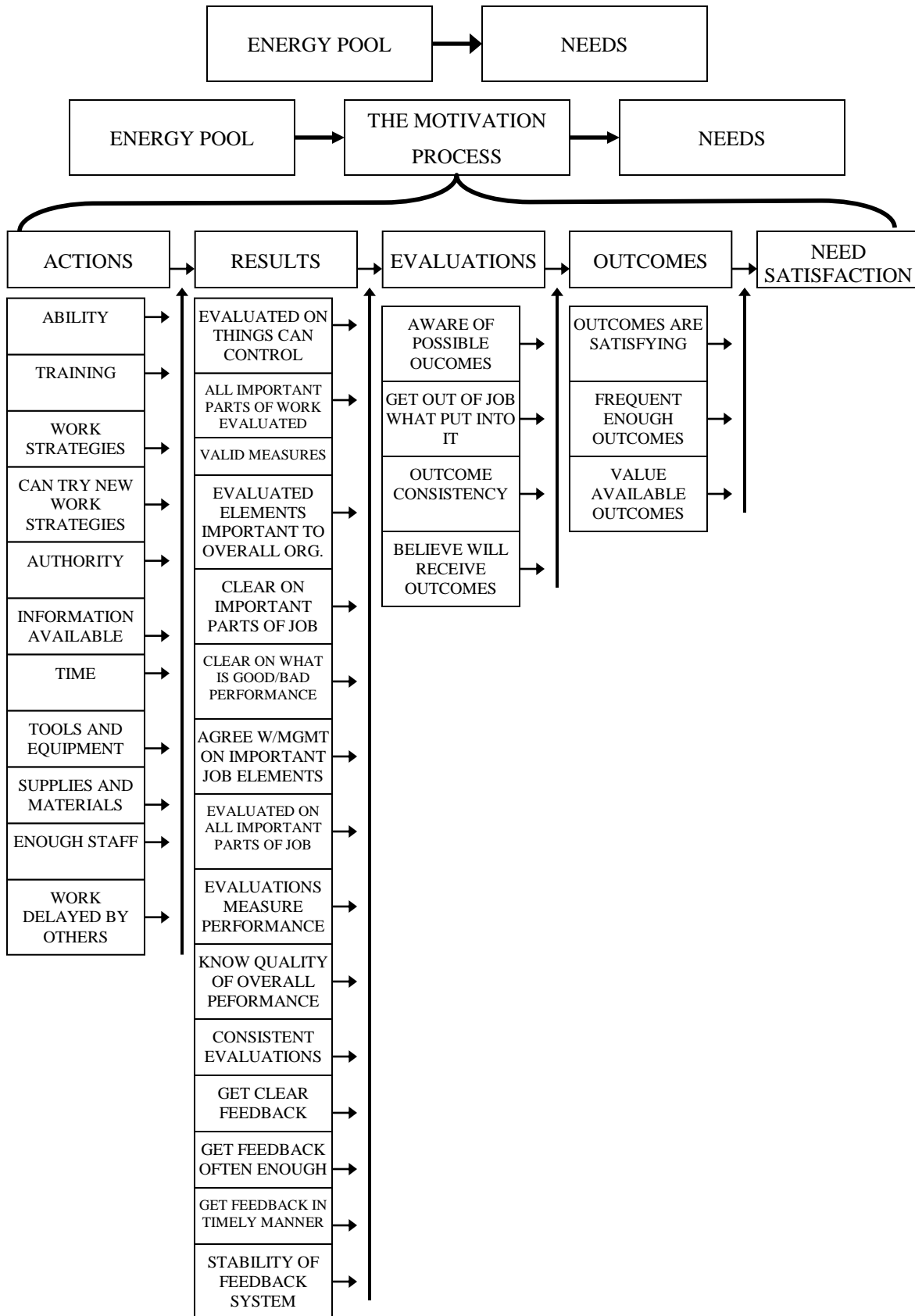
The primary findings of this study were the significant negative relationship between action-to-result connections and perceived discrimination, and the practically significant relationships between all motivation connections and performance. These findings suggest that employers should be very concerned with their employees' motivation levels because they relate directly to performance. These findings also suggest that employers should be conscious and fair in their distributions of resources as this is the presumed channel on which the relationship between perceived gender discrimination and the action-to-result aspect of motivation is based.

Conclusions

Although the moderator hypotheses were not supported, this study still represents an important step in discrimination research. In the past, the outcomes associated with being a victim of discrimination in the workplace have largely been ignored. This study establishes a clear relationship between perceived gender discrimination and work motivation. These results give employers another reason to take steps to alleviate any perception's employees might have of gender discrimination

This study also reaffirms the connection between motivation and performance, but it extends this by demonstrating strong, practically significant relationships between performance and the individual motivation connections. These results point to the need for employers to consider all aspects of motivation in their efforts to keep employees' performance high.

**APPENDIX A:
PRITCHARD AND ASHWOOD'S (2007) MOTIVATION MODEL**



**APPENDIX B:
INFORMED CONSENTS**

Informed Consent

Motivation and Acceptance in the Workplace

Please read this consent document carefully before you decide to participate in this study.

I am a doctoral student at the University of Central Florida. The purpose of this study is to examine the relationship between motivation and acceptance at work. Your participation will involve completing questionnaires about yourself. All of your responses will be kept confidential. Nothing you report on these questionnaires will ever be given to anyone in the company at which you are employed. Your responses will be collected via a secure website. Electronic records will be stored on a password-protected computer. You must be 18 years of age or older to participate in this study.

Your participation in this study is voluntary. The questionnaires will take about one hour to complete. You may refuse to answer any items in the questionnaires that make you feel uncomfortable. You may also choose not to participate in this study. Non-participation will not hurt you in any way. You are free to withdraw your consent and discontinue participation in the study at any time without consequence. There are no anticipated risks to you as a participant in this study.

For your participation in this study you will receive one point of extra credit. Furthermore, if your supervisor completes and returns the two additional surveys then you will receive one additional point of extra credit. Therefore you have the potential to receive two extra credit points for participating in this study. However, not asking a supervisor to complete the additional surveys will not prevent you from receiving one extra credit point for participating in this study. And, your responses to any of the surveys in this study will never be given to your supervisor or anyone else at the company for which you work.

If you have any questions about this research, you may contact myself, Jessica Cornejo, at jessica.cornejo@yahoo.com or at (407) 222-3859. Or you may contact my faculty supervisor: Dr. Robert Pritchard, Department of Psychology, University of Central Florida at (407) 823-2560. Questions or concerns about research participants' rights may be directed to the Institutional Review Board Office, IRB Coordinator, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The telephone number is (407) 882-2276.

Filling out the surveys indicate your acceptance of this informed consent. You are free to discontinue participation at any time.

Informed Consent

Motivation and Performance in the Workplace

Please read this consent document carefully before you decide to participate in this study.

I am a doctoral student at the University of Central Florida. The purpose of this study is to examine the relationship between motivation and performance at work. Your participation will involve completing questionnaires about an employee. All of your responses will be kept confidential. Nothing you report on these questionnaires will ever be given to the employee or to anyone in the company at which you are employed. Your responses will be collected via a secure website. Electronic records will be stored on a password-protected computer. You must be 18 years of age or older to participate in this study.

Your participation in this study is voluntary. The questionnaires will take about five minutes to complete. You may refuse to answer any items in the questionnaires that make you feel uncomfortable. You may also choose not to participate in this study. Non-participation will not hurt you in any way. You are free to withdraw your consent and discontinue participation in the study at any time without consequence. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this study.

If you have any questions about this research, you may contact myself, Jessica Cornejo, at jessica.cornejo@yahoo.com or at (407) 222-3859. Or you may contact my faculty supervisor: Dr. Robert Pritchard, Department of Psychology, University of Central Florida at (407) 823-2560. Questions or concerns about research participants' rights may be directed to the Institutional Review Board Office, IRB Coordinator, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The telephone number is (407) 882-2276.

Filling out the surveys indicate your acceptance of this informed consent. You are free to discontinue participation at any time.

**APPENDIX C:
GENDER IDENTIFICATION SCALE**

Gender Identification Scale

Every person is born into a gender group, but people differ on how important their *gender* is to them, how they feel about it, and how much their behavior is affected by it. These questions are about your gender or your gender group and how you feel about it or react to it.

Use the numbers given below to indicate how much you agree or disagree with each statement.

5: Strongly
agree

4: Somewhat
agree

3: Neither agree
nor disagree

2: Somewhat
disagree

1: Strongly
disagree

1. Being a woman is an important reflection of who I am. _____
2. In general, being a woman is an important part of my self-image. _____
3. Being a woman is unimportant to my sense of what kind of person I am. _____
4. Overall, being a woman has very little to do with how I feel about myself. _____
5. I value being a member of my gender group . _____
6. I am proud to be a member of my gender group . _____
7. I like being a member of my gender group. _____
8. I believe that being a member of my gender group is a positive experience. _____

**APPENDIX D:
SPECTOR'S (1988) WORK LOCUS OF CONTROL SCALE**

Items from the Work Locus of Control Scale

- * 1. A job is what you make of it.
- * 2. On most jobs, people can pretty much accomplish whatever they set out to accomplish.
- * 3. If you know what you want out of a job, you can find a job that gives it to you.
- * 4. If employees are unhappy with a decision made by their boss, they should do something about it.
- 5. Getting the job you want is mostly a matter of luck.
- 6. Making money is primarily a matter of good fortune.
- * 7. Most people are capable of doing their jobs well if they make the effort.
- 8. In order to get a really good job you need to have family members or friends in high places.
- 9. Promotions are usually a matter of good fortune.
- 10. When it comes to landing a really good job, who you know is more important than what you know.
- * 11. Promotions are given to employees who perform well on the job.
- 12. To make a lot of money you have to know the right people.
- 13. It takes a lot of luck to be an outstanding employee on most jobs.
- * 14. People who perform their jobs well generally get rewarded for it.
- * 15. Most employees have more influence on their supervisors than they think they do.
- 16. The main difference between people who make a lot of money and people who make a little money is luck.

*These items should be reverse scored.

Note. Response choices are; 1=disagree very much, 2 = disagree moderately, 3 = disagree slightly, 4 = agree slightly, 5 = agree moderately, 6 = agree very much.

**APPENDIX E:
MOTIVATION ANALYSIS QUESTIONNAIRE (MAQ)**

Participant Number: _____

Please complete the following questionnaire. Your honest and thoughtful replies are appreciated. Your responses will remain confidential and will not be released to your supervisor or employer.

OVERALL MOTIVATION

To start, please answer the following questions about your overall motivation on your job.

1. Overall, how motivated are you to do a good job?

Not at All Motivated	Slightly Motivated	Moderately Motivated	Highly Motivated	Very Highly Motivated
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How would you rate the amount of effort you put into your job?

Very Low	Low	Moderate	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. At work, I consistently put forth the maximum effort possible.

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Overall, my motivation to work hard on my job is:

Very Low	Low	Moderate	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. I put in only the minimum effort needed to keep my job.

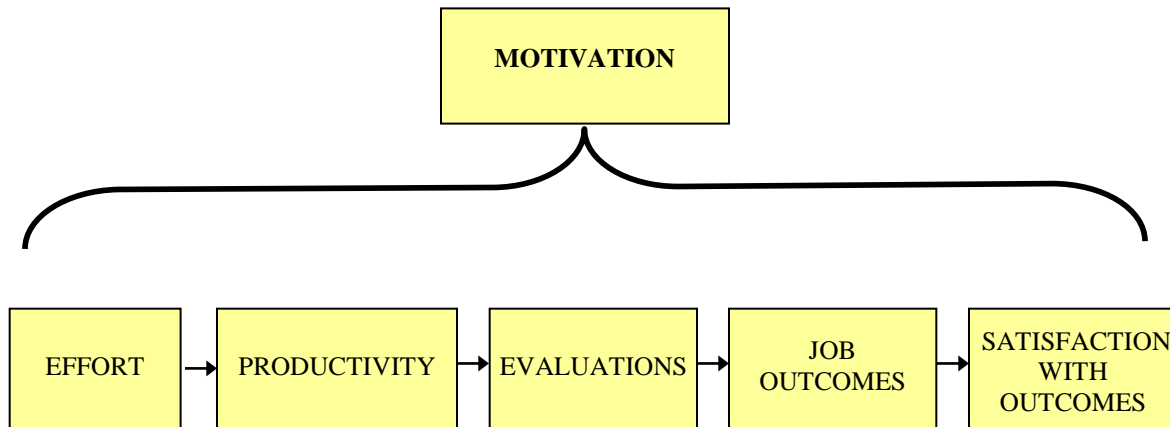
Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. I put in as little effort as possible at work.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WORK MOTIVATION

Motivation starts with using your effort to get work done. Your effort produces results, which are your output or productivity. This productivity is evaluated by yourself and by others. These evaluations can lead to outcomes you get from your job like pay, raises, recognition, and working conditions. These different job outcomes may or may not be satisfying to you. You can think of effort, productivity, evaluations, outcomes, and satisfaction as being linked together like the arrows in the picture below.

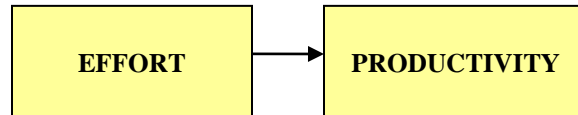


INSTRUCTIONS

In the following pages, we are asking about each of these motivational links. Please read the descriptions of the links carefully and then answer each question by marking an X in the appropriate box.

EFFORT TO PRODUCTIVITY LINK

In this section, we want to know how much the effort you put into your job influences your productivity (the quantity and quality of work you get done). On some jobs, putting in more effort always results in more or better work than putting in less effort. For other jobs, putting in more or less effort has little effect on productivity. So the question we are asking is: **How closely is your productivity tied to your effort?**



1. My level of effort determines how productive I am in my job.

Never Rarely Sometimes Usually Always

2. If I increase the amount of effort I put into my job, my productivity:

Gets Worse Stays the Same Improves Slightly Improves Greatly Improves

3. My level of effort has no effect on my productivity.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

4. How much of your productivity is due to your own efforts?

None Very Little Some Almost All All

5. If I put more effort into my job, I will be more productive.

Never Rarely Sometimes Usually Always

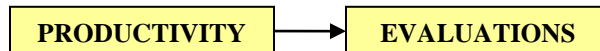
Effort: How much energy you put into your job	Productivity: The quantity and quality of your work • How <i>much</i> work you do
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INSTRUCTIONS: This section asks about job factors that influence the Effort to Productivity Link. For each of the following statements, please indicate how strongly you agree or disagree with the statement (SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree).

		STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1	I do not have some of the key abilities to do my job.	SD	D	N	A	SA
2	I have the training to do my job well.	SD	D	N	A	SA
3	I have a good strategy for doing my work well.	SD	D	N	A	SA
4	I have plenty of chances to try out better ways of doing the job.	SD	D	N	A	SA
5	I have the authority to make the decisions needed to do my job well.	SD	D	N	A	SA
6	I often do not have the information I need to do my job right.	SD	D	N	A	SA
7	I have enough time to perform my job well.	SD	D	N	A	SA
8	I have all of the tools and equipment I need to do my job well.	SD	D	N	A	SA
9	I have all of the supplies and materials I need to do my job well.	SD	D	N	A	SA
10	Sometimes the work is not done well because we are understaffed.	SD	D	N	A	SA
11	I am often delayed in my work by waiting for others to finish their work.	SD	D	N	A	SA

PRODUCTIVITY TO EVALUATIONS LINK

In this section, we want to know how your productivity (the quantity and quality of the work you get done) is related to evaluations of your work. By evaluations, we mean someone judging where your productivity falls in a range from good to bad. There are three different types of evaluations. The first is Self Evaluations which are done by you on your own productivity. The second is Informal Evaluations which are informal comments from the people you work with such as your supervisor, your subordinates, or other important people in your life. The third is Formal Evaluations such as annual performance reviews. There are questions below about each type of evaluation. On some jobs, doing more or better work would always lead to higher evaluations than doing less work or poorer work. For other jobs, evaluations are not related to productivity.



SECTION 1: SELF EVALUATIONS

There are different types of evaluations of your work, and we are going to separate these questions into three sections. In this first section, we are interested in how your productivity is related to your *personal evaluations* of your work. In other words, **How closely are your self-evaluations of your work tied to your level of productivity?**

1a. If my productivity on this job went up a lot, my evaluations of my own work would:

Decrease Stay the Same Slightly Increase Increase Greatly Increase

2a. If my productivity goes down, my evaluations of my own work go down.

Never Rarely Sometimes Usually Always

3a. My productivity has no effect on my evaluations of my own work.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

4a. The more productive I am, the more highly I evaluate my work.

Never Rarely Sometimes Usually Always

5a. The most important factor in how I evaluate my own work is my level of productivity.

Never Rarely Sometimes Usually Always

6a. My level of productivity determines how favorably I evaluate my work.

Never Rarely Sometimes Usually Always

Productivity: The quantity and quality of your work <ul style="list-style-type: none"> • How <i>much</i> work you do 	Evaluations: How good or bad your level of productivity is <ul style="list-style-type: none"> • How <i>good or bad</i> your work is • Evaluators: self, supervisor, co-workers, etc.
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SECTION 2: FORMAL EVALUATIONS

In this second section, we want to know how your productivity (the quantity and quality of your work) is related to the *formal organizational evaluations* you receive at work. Examples of this type of evaluation would be a formal performance review done by your supervisor every year or a feedback system where you received numeric information about your work on a regular, predictable basis. In some jobs, doing more or better work will always lead to better formal evaluations than doing less work or poorer work. For other jobs, formal evaluations are not related to your productivity. So the question we are asking is: **How closely are the formal organizational evaluations you receive tied to your level of productivity?**

Do you have formal evaluations on your job? YES NO

If NO, skip this page; go to item 1c.

1b. If my productivity on this job went up a lot, my formal evaluations would:

Decrease Stay the Same Slightly Increase Increase Greatly Increase

2b. If my productivity goes down, the formal evaluations of my work go down.

Never Rarely Sometimes Usually Always

3b. My productivity has no effect on the formal evaluations of my work.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

4b. The more productive I am, the higher my formal evaluations.

Never Rarely Sometimes Usually Always

5b. The most important factor in how my work is formally evaluated is my level of productivity.

Never Rarely Sometimes Usually Always

6b. My level of productivity determines how favorable my formal work evaluations are.

Never Rarely Sometimes Usually Always

Productivity: The quantity and quality of your work
• How *much* work you do

Evaluations: How good or bad your level of productivity is
• How *good or bad* your work is
• Evaluators: self, supervisor, co-workers, etc.

SECTION 3: INFORMAL EVALUATIONS

In this next section, we want to know how your productivity (the quantity and quality of your work) is related to the *informal evaluations* you receive at work. Examples of this type of evaluation are your coworkers' comments about your work or your supervisor's informal feedback on work you have recently done. In some jobs, doing more or better work will always lead to better informal evaluations from others than doing less work or poorer work. For other jobs, these informal evaluations are not related to your productivity. So the question we are asking is: **How closely are the informal evaluations you receive from others tied to your level of productivity?**

1c. If my productivity on this job went up a lot, my informal evaluations by others would:

Decrease	Stay the Same	Slightly Increase	Increase	Greatly Increase
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2c. If my productivity goes down, the informal evaluations of my work by others go down.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3c. My productivity has no effect on the informal evaluations of my work.

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4c. The more productive I am, the higher the informal evaluations of my work.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5c. The most important factor in how my work is informally evaluated is my level of productivity.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6c. My level of productivity determines how favorable my informal evaluations from others are.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Productivity: The quantity and quality of your work
• How *much* work you do

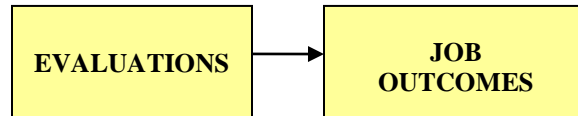
Evaluations: How good or bad your level of productivity is
• How *good or bad* your work is
• Evaluators: self, supervisor, co-workers, etc.

INSTRUCTIONS: This next section asks about job factors that influence the Productivity to Evaluations Link. For each of the following statements, please indicate how strongly you agree or disagree with the statement (SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree).

		STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1	All the important parts of my work are measured.	SD	D	N	A	SA
2	The measures of my work output are valid.	SD	D	N	A	SA
3	Many of the things I am measured on are not important to the overall organization.	SD	D	N	A	SA
4	It is not clear to me which parts of this job are the most important.	SD	D	N	A	SA
5	I know what is considered good and bad performance on my job.	SD	D	N	A	SA
6	My supervisor/manager and I agree on what is important and not so important on my job.	SD	D	N	A	SA
7	I am evaluated on all the important parts of my job.	SD	D	N	A	SA
8	I do not believe my evaluations measure how well I do the job.	SD	D	N	A	SA
9	I know how good or bad my overall performance is.	SD	D	N	A	SA
10	I get the same evaluation from everyone who evaluates my work.	SD	D	N	A	SA
11	I get clear information on how well I am doing my job.	SD	D	N	A	SA
12	I do not get information about my job performance often enough.	SD	D	N	A	SA
13	Feedback about my work is so delayed it often has little value.	SD	D	N	A	SA
14	The formal feedback system stays the same over time.	SD	D	N	A	SA
15	The informal feedback system stays the same over time.	SD	D	N	A	SA

EVALUATIONS TO JOB OUTCOMES LINK

In this section, we want to know how evaluations of your work influence the job outcomes you get. Job outcomes are the positive and negative things that happen and include raises, work space, friendships, feelings of accomplishment, criticisms, work assignments, etc. On some jobs, getting better evaluations always leads to better job outcomes. For other jobs, the job outcomes you get are not related to your evaluations.



SECTION 1: SELF EVALUATIONS

In the first section, we want to know how your *own evaluations* of your work affect the outcomes you give yourself. These outcomes include feelings of accomplishment, personal growth, pride, or disappointment. On some jobs, evaluating yourself higher always leads to more positive outcomes. For other jobs, you do not give yourself any outcomes based on your own evaluation. So the question we are asking is: **How closely are the outcomes you give yourself tied to your self-evaluations of your work?**

1a. If my evaluations of my own work go up, the amount of outcomes I give myself:

Decreases	Stays the Same	Slightly Increases	Increases	Greatly Increases
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2a. The job outcomes that I give myself have little to do with how good a job I think I did.

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3a. If my evaluations of my work go down, the job outcomes I give myself are worse.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4a. The better my evaluations of my own work are, the more job outcomes I give myself.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5a. If my evaluation of my own work improved a lot, the job outcomes I gave myself would:

Decrease	Stay the Same	Slightly Increase	Increase	Greatly Increase
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Evaluations: How good or bad your level of productivity is <ul style="list-style-type: none"> • How good or bad your work is • Evaluators: self, supervisor, co-workers, etc. 	Outcomes: The good and bad things you receive <ul style="list-style-type: none"> • Raises, work space, friendships, feelings of accomplishment, criticisms, work assignments, etc • Given by yourself, supervisor, co-workers, etc.
--	--

SECTION 2: FORMAL EVALUATIONS

In this section, we want to know how the *formal evaluations* of your work (e.g., formal feedback or performance reviews) affect the outcomes you receive. These outcomes may include raises, office space, criticisms, recognition, promotion opportunities, type of work assignments, feelings of achievement, personal growth, etc. On some jobs, getting better formal evaluations always leads to more positive outcomes. For other jobs, the outcomes you receive are not tied to your formal evaluations. So the question we are asking is: **How closely are the job outcomes you receive tied to your formal evaluations?**

Do you have formal evaluations on your job? YES NO

If NO, skip this page; go to item 1c.

1b. If my formal evaluations go up, the amount of job outcomes I get:

Decrease	Stay the Same	Slightly Increase	Increase	Greatly Increase
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2b. The job outcomes that I get have little to do with how good my formal evaluations are.

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3b. If the formal evaluations of my work go down, the job outcomes I get are worse.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4b. The better the formal evaluations of my work are, the more job outcomes I get.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5b. If my formal evaluations improved a lot, my job outcomes would:

Decrease	Stay the Same	Slightly Increase	Increase	Greatly Increase
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Evaluations: How good or bad your level of productivity is

- How good or bad your work is
- Evaluators: self, supervisor, co-workers, etc.

Outcomes: The good and bad things you receive

- Raises, work space, friendships, feelings of accomplishment, criticisms, work assignments, etc
- Given by yourself, supervisor, co-workers, etc.

SECTION 3: INFORMAL EVALUATIONS

In the next section, we want to know how the *informal evaluations* of your work (e.g., coworkers' comments, informal verbal feedback from your supervisor) influence the outcomes you receive. These outcomes may include raises, office space, friendships, criticisms, recognition, promotion opportunities, type of work assignments, feelings of achievement, personal growth, etc. In some jobs, getting better informal evaluations from others always leads to more positive job outcomes. For other jobs, the outcomes you receive are not tied to these informal evaluations. So the question we are asking is: **How closely are the job outcomes you receive tied to the informal evaluations you get from others?**

1c. If my informal evaluations from others go up, the amount of job outcomes I get:

Decrease	Stay the Same	Slightly Increase	Increase	Greatly Increase
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2c. The job outcomes that I get have little to do with how good my informal evaluations are.

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3c. If the informal evaluations of my work go down, the job outcomes I get are worse.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4c. The better the informal evaluations of my work are, the more job outcomes I get.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5c. If my informal evaluations improved a lot, my job outcomes would:

Decrease	Stay the Same	Slightly Increase	Increase	Greatly Increase
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

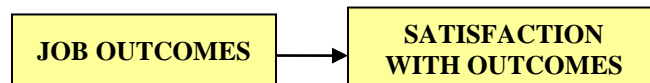
Evaluations: How good or bad your level of productivity is <ul style="list-style-type: none"> • How good or bad your work is • Evaluators: self, supervisor, co-workers, etc. 	Outcomes: The good and bad things you receive <ul style="list-style-type: none"> • Raises, work space, friendships, feelings of accomplishment, criticisms, work assignments, etc • Given by yourself, supervisor, co-workers, etc.
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INSTRUCTIONS: This next section asks about job factors that influence the Evaluations to Outcomes Link. For each of the following statements, please indicate how strongly you agree or disagree with the statement (SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree).

		STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1	I believe I will receive the outcomes that my organization promises.	SD	D	N	A	SA
2	The way outcomes are given here seems fair.	SD	D	N	A	SA
3	People who get the same evaluations here do not get the same level of outcomes.	SD	D	N	A	SA
4	It is not clear what all the outcomes are on this job.	SD	D	N	A	SA
5	Different evaluators give me different levels of outcomes even when their evaluations of me are the same.	SD	D	N	A	SA
6	If my evaluation does not change, I get the same amount of outcomes each time.	SD	D	N	A	SA

JOB OUTCOMES TO SATISFACTION LINK

In this section, we want to know how the job outcomes that you can get on your job result in feelings of satisfaction or dissatisfaction. As before, these job outcomes are the positive and negative things that happen and include raises, work space, friendships, feelings of accomplishment, criticisms, type of work assignments, etc. We are only interested in the job outcomes that are available to you in your current job. On some jobs, the outcomes that you can get strongly influence your level of satisfaction. On other jobs, the outcomes you can get have no effect on your satisfaction. So the question we are asking is: **How closely are your feelings of satisfaction and dissatisfaction tied to the outcomes available on your job?**



1. The job outcomes I can get on this job are:

Not Important to Me	Slightly Important to Me	Somewhat Important to Me	Important to Me	Very Important to Me
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. The outcomes I can get on this job are valuable to me.

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. If I get the job outcomes this job can provide, I am going to be satisfied.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. It does not matter what my job outcomes are, my level of satisfaction will not change.

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. The more job outcomes I get on this job, the more satisfied I am.

Never	Rarely	Sometimes	Usually	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Outcomes: The good and bad things you receive <ul style="list-style-type: none"> • Raises, work space, friendships, feelings of accomplishment, criticisms, work assignments, etc • Given by yourself, supervisor, co-workers, etc. 	Need Satisfaction: How satisfied you are with your outcomes
--	--

INSTRUCTIONS: This section asks about job factors that influence the Job Outcomes to Satisfaction Link. For each of the following statements, please indicate how strongly you agree or disagree with the statement (SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree).

		STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1	If I got the outcomes that are available on this job, I would be satisfied.	SD	D	N	A	SA
2	The outcomes on my job do not come often enough for me to be satisfied.	SD	D	N	A	SA
3	I like the type of outcomes my organization can provide.	SD	D	N	A	SA
4	The overall level of outcomes I get on this job meets my expectations.	SD	D	N	A	SA
5	Compared to what other people here get, the outcomes I get are fair.	SD	D	N	A	SA

**APPENDIX F:
OVERALL PERFORMANCE SCALE**

Overall Performance Scale

Please complete the following questionnaire about your employee. Select the most accurate response to each item. Your honest and thoughtful replies are appreciated. Your responses will remain confidential and will not be released to anyone, including the employee whom you are evaluating.

1. Overall, this person's work is:

Very Poor	Poor	Adequate	Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Compared to other people, this person's overall performance is:

Marginal	Fair	Satisfactory	Good	Exceptional
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. This person's overall performance:

Is Well Below Expectations	Is Below Expectations	Meets Expectations	Exceeds Expectations	Greatly Exceeds Expectations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. In how many areas does this person's performance need to improve?

None	Very Few Areas	Some Areas	Many Areas	Most Areas
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. How often does this person perform his/her job effectively?

Never	Rarely	Sometimes	Frequently	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**APPENDIX G:
OVERALL MOTIVATION SCALE (SUPERVISOR VERSION)**

Overall Motivation Scale

Please complete the following questionnaire about your employee. Select the most accurate response to each item. Your honest and thoughtful replies are appreciated. Your responses will remain confidential and will not be released to anyone, including the employee whom you are evaluating.

1. Overall, how motivated is s/he to do a good job?

Not at All Motivated	Slightly Motivated	Moderately Motivated	Highly Motivated	Very Highly Motivated
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How would you rate the amount of effort this person puts into his/her job?

Very Low	Low	Moderate	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. This person consistently puts in the maximum effort possible at work.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Overall, this person's motivation to work hard on the job is:

Very Low	Low	Moderate	High	Very High
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. This person puts in only the minimum effort needed to keep the job.

Never	Rarely	Sometimes	Frequently	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. This person puts in as little effort as possible at work.

Never	Rarely	Sometimes	Frequently	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**APPENDIX H:
PERCEIVED DISCRIMINATION SCALE**

Perceived Discrimination Scale

Please select the most accurate response to each item. Your honest and thoughtful replies are appreciated. Your responses will remain confidential and will not be released to anyone.

1. Men in general have opportunities at this organization that I do not have.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. There are privileges that men have at this organization that I do not have.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. At this organization men have received some kinds of advantages due to their gender.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Good things have happened to men at this organization because of their gender.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Men have received preferential treatment at this organization because of their gender.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. I have been the victim of gender discrimination at this organization.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. I have to work harder than men at this organization to get the same level of recognition.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. At this organization, my suggestions or ideas are often ignored because of my gender.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**APPENDIX I:
DEMOGRPAHIC DATA FORM**

Demographic Data Form

Please circle the response that best describes you.

1. Sex: Male Female

2. Race: a. White/Caucasian
 b. Black/African American
 c. Asian
 d. Middle Eastern
 e. Native American
 f. Hispanic/Latino
 g. Other

3. Age: a. Less than 18 years
 b. 18-24 years
 c. 25-34 years
 d. 35-44 years
 e. 45-54 years
 f. Greater than 55 years

4. What is your highest level of education obtained?
 - a. High school diploma/GED
 - b. Some College
 - c. Associate's degree (A.A.)/2-year degree
 - d. Bachelor's degree/4-year degree
 - e. Master's degree/MBA
 - f. Doctorate
 - g. Other

5. How long have you worked for your current organization?
- a. Less than 3 months
 - b. 3-6 months
 - c. 6-12 months
 - d. 1-2 years
 - e. Greater than 2 years
6. How long have you been in your current position?
- a. Less than 3 months
 - b. 3-6 months
 - c. 6-12 months
 - d. 1-2 years
 - e. Greater than 2 years
7. How important is your current position to your career path?
- a. Not at all important
 - b. Somewhat important
 - c. Very important
 - d. This position is my final goal in my career path.
8. How much do you value your current job?
- a. I don't value my job at all. It is not important.
 - b. I value my job a little. It is somewhat important.
 - c. I value my job. It is important to me.
 - d. I value my job a lot. It is very important to me.

**APPENDIX J:
IRB HUMAN SUBJECTS PERMISSION LETTER**



Office of Research & Commercialization

May 21, 2007

Jessica Cornejo
3921 Calibre Bend Lane #501
Winter Park, FL 32792

Dear Ms. Cornejo:

With reference to your protocol #07-4416 entitled, "An Examination of the Relationships among Perceived Sex Discrimination, Work Motivation, and Performance," I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office. **This study was approved on 5/19/2007. The expiration date for this study will be 5/18/2008.** Should there be a need to extend this study, a Continuing Review form must be submitted to the IRB Office for review by the Chairman or full IRB at least one month prior to the expiration date. This is the responsibility of the investigator.

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board through use of the Addendum/Modification Request form. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

A handwritten signature in cursive script that reads 'Joanne Muratori'.

Joanne Muratori
IRB Coordinator
(FWA00000351 Exp. 5/7/2010, IRB00001138)

Copies: IRB File
Robert Pritchard, Ph.D.

JM:jm

12201 Research Parkway • Suite 501 • Orlando, FL 32826-3246 • 407-823-3778 • Fax 407-823-3299

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