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# A Further Test of Strain Theory: Does Gender Discrimination Contribute to Theft by Employees?

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A FURTHER TEST OF STRAIN THEORY: DOES GENDER DISCRIMINATION  
CONTRIBUTE TO THEFT BY EMPLOYEES?

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## ABSTRACT

### A FURTHER TEST OF STRAIN THEORY: DOES GENDER DISCRIMINATION CONTRIBUTE TO THEFT BY EMPLOYEES?

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Old Dominion University, 2013  
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This study was an examination of General Strain Theory's contention that gender discrimination, as a source of strain, can lead to deviant behaviors. Specifically, the effects of gender discrimination in the workplace on theft by employees. The study was unique in that it utilized a sample split three different ways. First, by gender, second by perceived and actual measures of both crime and discrimination, and third, by combined versus separate discrimination measures. The third item being particularly unique. The study utilized bivariate correlations and logistic regression throughout for statistical analyses. The results indicated that combined measures were not as effective at predicting the likelihood of intentions to steal/theft as the separate measures and that significant results were highly dependent upon gender and the type of discrimination. Additionally, the results suggest that GST may not be as suited to predicting theft by employees when faced with discrimination as psycho-social factors. Indeed, control variables had the greatest effect on decisions to commit theft, presumably operating as drivers for the subjective evaluation of strains. These last few points are important as they contribute to both strain and crime literature. The separation of strains into distinct types and using both perceived and actual measures garnered several interesting results not achieved in prior research. The study also discussed policy implications, limitations, and future research.

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## CHAPTER I

### INTRODUCTION

Little is known about the relationship between gender discrimination in the workplace and theft by female employees. Studying the relationship between gender discrimination and workplace theft by women is particularly relevant because of the increasing number of women occupying low-wage positions. Some have argued that the economic marginalization of women has provided motivation for women to increasingly commit certain crimes (See Heimer 2000 for discussion) and that the availability of credit cards, credit card numbers, and access to computers in low-paying jobs has provided women with opportunity for increases in theft in the workplace (Steffensmeier, Allan, and Streifel 1989). In addition, gender stratification in the workplace means that the male power-control structures present in many businesses mimic those found in many families and other institutions (Blackwell 2000; Blackwell and Piquero 2005). These structures encourage opportunity hoarding of valuable business resources (e.g. pay, positions, promotions) and the concentrated opportunity for discrimination in the form of sexual harassment, the “pay gap”, the “glass ceiling”, the “glass escalator”, and “sticky floors.” The strain related to these forms of discrimination that result from gender stratification may be a factor in workplace theft.

Although the relationship between gender stratification and crime has been a focus of feminist criminology for some time, historically, it has not been a focus of “main stream” criminology. Some strain theory research, however, has recently turned to focus on sex differences in criminal behavior (i.e. Broidy 2001; Dingwell 2001; Eitle 2002;



Langton 2004; Leeper-Piquero and Sealock 2004; Slocum, Simpson, and Smith 2005; Morgan 2006; Rebellon et al. 2009). In fact, Robert Agnew and other General Strain Theory (GST) researchers predict the strain resulting from problems of stratification may induce negative affective states (Brezina 1996; Broidy and Agnew 1997; Mazarolle and Piquero 1998; Broidy 2001; Eitle 2002; Agnew 2006) and the coping response of criminal behavior. This dissertation will apply these predictions to an examination of theft and intentions to steal by employees.

The ability of most criminological theories to explain gender differences in crime have not been tested thoroughly much less with GST in particular (Eitle 2002; Akers and Sellers 2009). Those studies that have used GST to explain gender differences have produced mixed results (Belknap 2007). For example, Rebellon et al. (2009) did not find any differences between men and women in terms of situational anger or minor theft. Eitle (2002), however, found that women were more likely to engage in criminal activity when anger is experienced. Broidy and Agnew (1997) found that both men and women experience anger as a result of strain, but women also experience depression and anxiety, which may direct destructive behaviors inwards.

While past micro-level research on gender stratification, its resulting problems, and crime in the workplace has used neutralization theory (Atkinson 1998; Leeper-Piquero, Tibbetts, and Blankenship 2005), critical perspectives (Daly 1989; Messerschmidt 1993), opportunity theory (Mustaine and Tewksbury 2002), and equity theory (Greenberg 1990), strain theory seems most promising in terms of explaining the relationship between gender stratification and theft (Heimer 2000). Discrimination in the workplace based on gender may be significantly related to theft because discrimination is

likely to be seen as unjust, high in magnitude, or associated with low social control (Agnew 2001:343). In this sense, low social control refers to reduced commitment or attachment to the workplace (Agnew 2001). There has not, however, been much quantitative research examining discrimination as a cause of strain (Agnew 2001), though some researchers have already approached employee malfeasance from a General Strain Theory perspective. Research, for example, has addressed the effects of general economic pressures or financial need on the part of the offender (Hollinger and Clark 1983; Mustaine and Tewksbury 2002) and the disjunction between how workers perceive they should be compensated and treated versus their actual pay and experiences on the job (Hollinger and Clark 1983; Greenberg 1990; Huiras, Uggen, and McMorris 2000). In addition, Eitle's (2002) research suggested that strain contributed to female criminality in the workplace through stratification. In his study, women who were involved in crime were more likely to report experiencing major forms of gender-based stratification than those who were not (28 versus 10 percent) (Eitle 2002:435).

Although there have been recent studies of strain and neutralization (Froggio, Zamaro, and Lori 2009), strain and anger (Botchkovar, Tittle, and Antonaccio 2009), strain and economic inequity (Rebellon et al. 2009), and strain and eating disorders (Leeper-Piquero et al. 2010), few have looked at gender stratification and strain in the workplace relative to employee crime.

This dissertation uses original data to contribute to the field of criminology in a number of ways. The first contribution results from GST's prediction of the problems of unjust/unfair treatment. It is argued that unjust/unfair treatment results from gender discrimination which results, in turn, from gender stratification. The second contribution

is by testing the impact of gender discrimination at work in terms of both subjective and objective strains, and their effect on theft by employees. This is important because most tests of GST use objective measures of strain. In addition, this is important to businesses as well as criminology as the results can be used to guide training and assessment programs. A third contribution results from measuring the negative affective states of frustration and anxiety along with the more often tested anger and depression. A fourth contribution of the dissertation is found in its application to both adults and the workplace, neither of which has been a focus of General Strain Theory or research testing it. Indeed, “most currently available data sets capable of testing the theory involve surveys of adolescents” (Agnew 1992:48). Fifth, studying workplace crime will also contribute to the field’s knowledge about female adult offending in the general population. Relative to the wealth of nationally representative data on self-reported juvenile delinquency, much of which has focused on young males, comparatively little is known about crime attributable to adults who may have escaped detection (Friedrichs 2002). Moreover, employee deviance is understudied in criminological research, in part because it is rarely detected. Even when it is detected, it is often not punished through the legal system (Parilla, Hollinger, and Clark 1988; Lipman and McGraw 1988; Barak, Leighton and Flavin 2007). This dissertation will therefore contribute to the literature by examining the role of gender stratification in the workplace and its effect on strain and criminal behavior.

This dissertation uses original data collected from a college sample to test the notion that the objective and subjective strains resulting from various types of gender discrimination in the workplace will lead to theft by employees. The data are unique in

that vignettes are used to capture respondents' perceptions of strain as a form of discrimination in the workplace and their effects on the intention to commit theft by employees, as well as actual experiences of discrimination and effects on theft by employees. As noted by Agnew (1992), actual experiences would best be used to measure strain and crime, however, a good alternative would be the use of vignettes. Viewed subjectively as unjust, unfair, or harmful, the strains of gender discrimination are predicted to lead to anger, frustration, or depression/anxiety and ultimately to the behavioral coping mechanism of theft. Consistent with strain literature, control variables include self-control (impulsivity), social-control (commitment), pre-disposition, peer association, and friend and family support.

There are four research questions addressed in this study: (1) to what degree is gender discrimination perceived as strain, (2) to what degree does this strain lead to anger, frustration, depression, or anxiety, (3) to what degree does the perceived strain/negative affective state contribute to theft by employees, and (4) to what degree do males and females differ on the role that any of the key variables has on theft? To begin the examination of these questions, the next section provides an overview of General Strain Theory as well as its relationship to gender discrimination in the workplace. In chapters 2 and 3, prior research of GST and gender discrimination, gender discrimination in the workplace, and gender discrimination and theft are discussed. Discussion of the method of collecting and analyzing the data are presented in chapter 4, followed by results in chapter 5 and discussion/conclusions in chapter 6.

## CHAPTER II

### THEORY

Agnew's (1992) General Strain Theory hypothesized that strain will lead to negative emotional states and, ultimately, criminal behavior when other mechanisms for dealing with strain are blocked or simply unavailable. The following discussion will review Agnew's theory through an analysis of how he revised and augmented traditional strain theory, including discussions on the various types of strain and negative emotional states, particularly anger. In addition, there will be a discussion of the association between gender discrimination and strain, as well as of gender discrimination in the workplace.

#### AGNEW'S STRAIN THEORY

In 1992, Agnew built on the work of previous strain theorists to revitalize strain theory. It had undergone considerable critique in the previous two decades (Aseltine, Gore, and Gordon 2000) and much of criminological attention had turned to analyses of social learning or social control theories. The main contentious aspect of strain as proposed by theorists such as Merton (1938) is that it was largely limited to the unequal access to socially valued resources, which primarily affected the poor. According to Agnew (1992:50), "the classic strain theories of Merton (1938), Cohen (1955), and Cloward and Ohlin (1960) focus on only one type of negative relationship: relationships in which others prevent the individual from achieving positively valued goals. This structural emphasis of strain theory did not explain crime by more affluent individuals."

Agnew's (1992) GST differs by focusing on social psychological aspects rather than the social structural aspects of traditional strain theories (Langton 2004). This broadened the theory from a focus on lower class criminality to a focus on the individual and his or her immediate social environment (Agnew 1992; Agnew, Cullen, and Burton Jr. 1996). Additionally, Agnew (1992:50) noted that rather than just classifying strain, which he now defined as "...events or conditions that are disliked by the individual", as being caused by failure to achieve positively valued goals, strain may result "from the inability to escape legally from painful situations."

Moving beyond the single classification of strain found in the work of Merton (1938), Agnew (1992:50) hypothesized three "ideal" types, or categories, of strain that result from negative relationships with others; the failure to achieve positively valued goals, the removal of positive stimuli, or the presence of negative or noxious stimuli. Within the category of failure to achieve positively valued goals, Agnew (1992:56) included three distinct types of strain: the disjunctions between (1) aspirations and expectations/actual achievements, (2) expectations and actual achievements, and (3) just/fair outcomes and actual achievements. While criminology has focused on the first type of disjunction, "anger and frustration are derived primarily from the other two types of strain" (Agnew 1992:57). Goal blockage involved the three disjunctions. The first is the disjunction between aspirations and actual achievements, which dealt with "immediate rather than future goals, actual achievements rather than expected achievements" (Agnew 1992:52). The second was the disjunction between expectations and actual achievements, which suggested goals are existentially, or monetarily, based. The third was the disjunction between just/fair outcomes and actual outcomes, which

suggested individuals will engage in behaviors that restore equity. The last two disjunctions were primarily responsible for the negative affective state of anger (Agnew 1992:54). The three forms of failure to achieve positively valued goals were also conditioned by the nature, intensity, and duration of the strain as well as available legitimate coping mechanisms and social support or low social control.

The removal of positive stimuli, the second type of strain, involved the loss of something or someone viewed as important to the individual. This was often operationalized in research as a life-events list indicating strain, such as losing a parent or losing established relationships and friends by moving to a new school. According to Agnew (1992:57):

The actual or anticipated loss of positively valued stimuli may lead to delinquency as the individual tries to prevent the loss of the positive stimuli, retrieve the lost stimuli or obtain substitute stimuli, seek revenge against those responsible for the loss, or manage the negative affect caused by the loss by taking illicit drugs.

The presence of negative stimuli, the third type of strain, involved the strain caused by the deviant actions of others. If the effected individual cannot avoid the noxious stimuli, negative emotional states and subsequent deviance may result. Agnew (1992:58) stated:

Noxious stimuli may lead to delinquency as the adolescent tries to (1) escape from or avoid the negative stimuli; (2) terminate or alleviate the negative stimuli; (3) seek revenge against the source of the negative stimuli or related targets, and/or (4) manage the resultant negative affect by taking illicit drugs.

In addition to increasing the types of strains, Agnew (2001, 2006) posits that strain should be separated into “objective” and “subjective” types. Objective strains are those that are viewed as being disliked by the majority of persons in a particular setting or group, while subjective strains are those disliked by the individual who experiences them

(Agnew 2001). Subjective strains are therefore up to the interpretation of the individual and may or may not coincide with objective strains. For example, a female starting a new job in a male dominated field, may experience gender discrimination. She may also experience the same strain subjectively, if she interprets certain acts against her as intentional or unjustly discriminatory. As objective strains are viewed as intentional, unjust or unfair, or harmful they are subjectively evaluated as high in magnitude and are more likely to lead to a negative affective state (Agnew 2001). Froggio and Agnew (2007) note that there is some overlap between the two - those actions disliked by the majority do tend to be disliked by most individuals – though they argue that subjective strains will have the greatest effects. Indeed, Froggio and Agnew (2007) found strong support for this proposition.

Like earlier strain theorists, Agnew (2001) posits that strain, whether objective or subjective, does not always lead to criminal behavior. Indeed, Agnew argues strain is more likely to lead to criminal behavior when outcomes are viewed negatively, noting “it is important for GST [to] describe why some strains are more likely to be perceived as unjust than others” (Agnew 2001:328). The suggestion is that an objective strain will be perceived subjectively as unjust or unfair when it involves “the voluntary and intentional violation of a relevant justice norm” (Agnew 2001:329). Subjective strain then, becomes a connecting link between perceived unjust/unfair conditions and crime (Botchkovar et al. 2009). Agnew (2001) also notes that master personality traits contribute to crime being chosen as the coping mechanism for certain strains.

Regardless of the type of strain experienced, all types increase the likelihood that some form of a negative emotional state will be experienced (Agnew 1992). The most



relevant to GST is negative emotionality, which often occurs with negative relations with others (Agnew, Brezina, and Wright 2002). Agnew (1992:49) argues that negative affect creates pressure for corrective action and may lead adolescents to “make use of illegitimate channels for goal achievement”. Individuals who have high levels of negative emotionality are predicted to exhibit the key emotion of anger and be predisposed to respond in an aggressive manner. To this end, Berkowitz (1993) notes that stressful events may lead to either aggressive-related or escape-related tendencies. Aggressive-related tendencies include frustration and anger while escape-related tendencies include depression and fear. Some research suggested that individual forms of strain differ in their effects on inward or outward responses (depression and anger, respectively) and in their relationship to property or violent crimes (Rice 2006).

Anger and frustration as well as depression and anxiety are of primary interest to strain theory because these are the negative affective states most likely to lead to crime-coping behaviors. Most research, however, focuses on the state of anger due to its prominence in strain theory. Anger is thought to be the most important mediator of the processes leading from strain to crime because “anger increases felt injury and the need for adaptive, delinquent, responses” (Agnew 1992:60). According to Morgan (2006:37), “anger is caused by a personal affront perceived to be intentional and unjustified.” This may differ from other negative affective states. Morgan (2006) also noted that frustration, depression, and fear occur respectively with blocked goals, perceptions of irrevocable harm, or an impending threat. In an attempt to organize the differences, Morgan (2006:25) suggested:

- Anger is more likely than frustration, depression, or fear to result from a strain that is characterized by a personal, intentional, and unjustified affront.

- Frustration is more likely than anger, depression, or fear to result from a strain that is characterized by an interference or blockage of personal goals or motivations even if unintentional or justified.

Anger may also be subdivided into trait anger or state anger. Trait anger refers to a “general disposition to be chronically angry” (Akers and Sellers 2009:201), while state anger refers to negative emotions derived in specific situations. With its emphasis on external, situational causation, it is state anger that is most consistent with strain theory (Spielberger, Jacobs, Russell, and Crane 1983).

As noted by Morgan (2006), not all strains lead to anger in all people, some lead to other emotions such as frustration, depression, anxiety, and fear. Further, despite emphasizing anger, there is reason to believe that other emotions are important catalysts for crime. Some researchers contend that strain may lead to non-normative responses that are products of psychosocial stressors, which produce states that induce motive for theft (e.g., Agnew 1992). Although frustration is a separate emotion from anger, like anger it can occur when goals are interrupted or blocked (Morgan 2006). Hollinger and Clark (1983:142) applied the notion of frustration and blocked goals to workplace crime: “When employees felt exploited by the company...these workers were more involved in acts against the organizations as a mechanism to correct perceptions of inequity or injustice.” These injustices may have led to frustration by being perceived as forms of blocked goals in payment or promotion by employees. Frustration is different from anger, however, in that it does not require the “experience of a misdeed, perception that the situation is intentionally caused by another or the perception that the situation is unfair or unjustified” (Morgan 2006:22).

Depression, another often-tested negative emotion, is important to examine. According to GST, negative emotion, including depression, leads one to seek out some form of corrective action (Brezina 1996; Broidy 2001). It is especially important when examining female offending. Strain theorists argue that females are more likely to respond to strain with depression than anger (see for example, Broidy and Agnew 1997). Agnew (1992) also suggested that responses to strain are conditioned by the social and personal contexts in which strain is experienced. Factors conditioning the responses included social contexts that constrain delinquent and non-delinquent coping mechanisms, such as delinquent peers and the amount of available social support, as well as personal factors that predispose individuals to delinquency, such as self control. Due to mounting evidence contrary to these predictions, which they believed resulted from improper testing, Mazerolle and Maahs (2000) reexamined the role of conditioning factors posited by GST. Using data from the National Youth Survey, they examined “whether the strain-delinquency relationship is conditioned by various risk factors such as exposure to delinquent peers, holding deviant beliefs, and having a behavioral propensity toward delinquency” (Mazerolle and Maahs 2000:753). They found continued support for the conditional aspects of the theory. They suggest the lack of support in previous studies may be because of the use of improper analytical methods.

Another master personality trait to consider is self-control (referred to as one of the non-delinquent individual coping resources, or constraints, by Agnew 1992:71). According to Agnew et al. (2002), it may also condition the effect of strain on crime because those with low self-control are more likely to act on impulse. Those who test GST should control for a number of important factors, including pre-disposition, low

social control, and deviant peers, to distinguish between the effect of the condition and the effect of strain.

## STRAIN AND GENDER DISCRIMINATION

Over the years, Agnew suggested an extensive list of factors that cause strain. Among those listed, but rarely tested were forms of gender discrimination (See Broidy and Agnew 1997; Eitle 2002). Even rarer were tests of gender discrimination in the workplace, where it is argued by this author that discrimination against women, such as sexual harassment, is most commonly experienced. The following section provides an overview of what constitutes gender discrimination and how gender discrimination is manifested in the workplace.

### *Gender Stratification in the Workplace*

An examination of gender discrimination at work and its effects on crime in the workplace needs to start with a definition of gender stratification and how the resulting problems directly relate to crime. Stratification refers to “the unequal distribution of people across social categories that are characterized by differential access to scarce resources” (Massey 2007:1). The concept of stratification could therefore include race, age, ethnicity, gender, religion or any other personal feature which can be identified and categorized by those in power. As Massey (2007) suggests, perhaps the oldest and most durable categorical distinction that human beings make is between men and women, thus gender stratification is not a new phenomenon.

Barbara Reskin (2003:2) noted that “although we have been studying ascriptive inequality in employment for over 30 years with increasingly sophisticated techniques, we have made little headway explaining it.” Though explaining institutional stratification or its consequences is not the goal of this study, describing how gender stratification differs from other forms of stratification is an important step in the main goal, which is to understand how it affects women’s behavior in the workplace, in particular the likelihood of workplace theft.

The form of stratification in the workplace most pertinent to this study is institutionalized gender stratification. Institutional stratification is described as “the customary ways of doing things, prevailing attitudes and expectations, and accepted structural arrangements [that] works to the disadvantage [of the poor]” (Eitzen and Baca-Zinn 1994:174). Eitzen and Baca-Zinn (1994) noted that institutional stratification accounts for much of the inequality in gender found in the workplace through unequal pay, promotions, and position. Beeghley (1996) added that the higher ratio of men to women in a particular work group would increase the potential for gender discrimination through gender polarization.

Massey (2007) addressed the issue of gender stratification and how it differs from other forms of stratification. He suggested that gender stratification is different from other forms of stratification such as race and ethnicity because of the emotional bonds that preclude the positioning of women as a despised out-group (Massey 2007:213). In other words, men need women close to them, and vice versa, therefore women are not viewed as outcasts of society. Unlike people of different races, classes, or ethnicities, who can be separated from each other through physical means such as geographical

segregation, women and men need to be physically available to each other for biological reproduction. As a result of this, women tend to suffer stratification through the processes of exploitation and opportunity hoarding. Massey (2007:6) also noted, "Mechanisms of stratification include exploitation (when people in one social group expropriate a resource produced by members of another social group) and opportunity hoarding (when one social group restricts access to scarce resources). Opportunity hoarding, therefore, is enabled through a socially defined process of exclusion."

Gender stratification then largely involves separating men and women by social space rather than physical space. Throughout U.S. history, women have been separated from men in the area of work. Prior to the second and first world wars, men were the breadwinners who worked outside the home, while women worked in the home, caring for children, preparing meals and doing other domestic chores. When men did work in the home, it would often be agricultural work, spending long hours away from the spouse and children. When women did work outside the home for pay, it was often outside the traditional labor market.

As women in the U. S. entered the traditional labor market during the first and second world wars, occupational segregation involved brain versus brawn job types (Massey 2007:228). These jobs eventually relegated women to office and assembly line functions that required only light manual labor and very little analytical thought. This pattern of occupational segregation still exists. Over the last two decades, Andes (1992:234) found that 50% of lower paying service jobs and 78% of lower paying clerical jobs were still occupied by women. Even more recently, Kerbo (2006) noted that women and men still work primarily in gender segregated jobs. For example, women remain 90%

of those employed as registered nurses, secretaries, receptionists, kindergarten teachers, and childcare workers. Men remain 90% of architects, engineers, pilots, mechanics, laborers, and firefighters (Petersen and Morgan 1995; Barak et al. 2007:75).

In addition to entering the market in lower paying jobs and gender segregated jobs, women tend to enter the labor market later than men. In addition, they are more likely to periodically leave for child or parental care (Eitzen and Baca-Zinn 1994). This creates inequality in terms of seniority and time-in-grade for pay raises and promotions.

Another gender stratification concept important to understanding how the workplace is stratified by gender is “male primacy.” Male primacy frames men as more rational and thus more deserving of managerial positions (Ridgeway 2009). As women entered the workplace after the turn of the 20<sup>th</sup> century, the idea that men and women differ in terms of their level of rationality meant that women were systematically excluded from “categories carrying greater prestige, authority, and earnings, thereby producing an occupational ghetto for women that serve to limit their earnings and mobility” (Massey 2007:218). Smith (2002) echoed this sentiment, and noted job authority helps bring status both inside and outside the workplace. The result was differences in the number of men versus women in managerial positions. This, in turn, eventually led to additional forms of gender stratification such as sexual harassment and the glass ceiling.

Gender stratifies the workplace similar to the way it stratifies the home; by allowing women to work with men, but not as equal to men. This inequality manifested itself into an unequal power and authority structure. Power, defined as “control over resources, people, and things” (Elliott and Smith 2004) has an essential role in

stratification. As Eitzen and Baca-Zinn (1994) note, power structures in an organization can result in blocked opportunities. Three power and control mechanisms identified by Elliott and Smith (2004:365-366) that suppress opportunities for women in the workplace include (1) direct stratification (e.g. sexual harassment and lower pay), (2) the exclusion of women from networks that regulate access to information, opportunities and resources needed to advance in the workplace (e.g. training, educational, and experiential), and (3) supervisors' preferences for similar others (e.g. promotion of males by males).

Additionally, the authority structure of the workplace has typically been designed with men at the top of the corporate structure and women occupying the lower levels.

Additionally, as men move up the corporate ladder, while women remain occupationally stagnant, their promotions reinforce the authority structure. This has occasionally been referred to as the "good ole boys club" (Eitzen and Baca-Zinn 1994). As Akers and Sellers (2009:289) noted, "Privileged males rule, make the rules, and enforce the rules. In this system, women are more disadvantaged, restricted, and controlled. Male dominance is maintained and women are kept in their place in part by sex-role expectations that are enforced by both the informal and formal control systems."

Recognizing gender stratification at work is important because it serves to promote a number of forms of discrimination including sexual harassment, unequal pay resulting in a "pay gap", a lack of promotional opportunities resulting in the "glass ceiling", conditional promotion for males within female dominated occupations resulting in the "glass escalator", and women occupying menial jobs resulting in "sticky floors." These will be discussed in greater detail in the next section.



*The Effects of Gender Stratification and Gender Discrimination in the Workplace*

Five forms of gender discrimination that result from gender stratification in the workplace are the “glass ceiling,” “glass escalator,” “sticky floors” “pay gap” between men and women, and sexual harassment. The “glass ceiling” refers to the powerlessness of women to break through middle-management jobs to the higher status positions in a company (Kerbo 2006). The “glass escalator” refers to men’s movement upward at a faster rate than females in female dominated occupations (Williams 1992). “Sticky floors” refers to women who are assigned to low-paying, menial manual labor jobs (Massey 2007). These three interrelated phenomena socially isolate women at work, and prevent them from attaining status and power in the workplace. Additionally, as Kemp and Beck (1986:325) noted, “the cost of stratification against females can be defined either in terms of the disadvantage of being female [glass ceiling] or in terms of the advantage of being male [glass escalator].”

In addition to the three forms of discrimination discussed above, the fourth, the pay gap between men and women, is one of the most studied form of discrimination resulting from gender stratification in the workplace. Beginning in the early 1960s with anti-discrimination legislation, in particular the Equal Pay Act of 1963, and organizations such as the National Organization of Women (NOW), in the pay gap began to lessen, but did not disappear (Kemp and Beck 1986; Beeghley 1996). By 2004, women still made only 77 cents on each dollar made by a man. The median income for men was \$40,798 and \$31,223 for women (Barak et al. 2007:74). Thus, although there has been some improvement in women’s wages over the years, the gap between men and women remains.

There is some evidence that the difference in wages can come from either starting wages or wage increases. As noted by Massey (2007:226):

In most jobs, wages rise with work experience and job tenure. Indeed, in the blue-collar sector, although men and women earn different starting wages... once hired both experienced the same returns to work experience, and the male-female wage gap remains roughly constant over time. In contrast, among white collar workers the initial wage gap between men and women is relatively small but with experience in job tenure male wages rise much more steeply than those of women, and the size of the wage gap increases steadily over time.

Kemp and Beck (1986) found clear evidence of the existence of earnings differences between males and females in the majority of the work for similar occupations. They also note that “the higher the proportion of females in an occupation, the lower females’ overall earnings tend to be, however the higher proportion of female in the occupation also results in a smaller earnings gap between males and females within work similar occupations” (Kemp and Beck 1986:340).

The continued segregation of men and women into different occupational/industrial niches also plays a prominent role in lowering female earnings compared to those of males (Allen and Sanders 2002; Massey 2007). To measure pay differences across occupations, Boushey and Cherry (2003), divided the labor market into two sectors: college-required occupations where most workers have some college, and no-college-required occupations where most workers do not. They found that the college-required sector tends to be more institutionalized and subject to affirmative action procedures than the no-college-required sector, where informal hiring procedures tend to reinforce biases. These hiring practices could lead to the initiation of the pay gap. The social networks of women and men may provide access to different job-related information and knowledge, and this access may affect entry into different jobs (Joshi, Makepeace, and Dolton 2007). Previous research has found that personal contact is an

important source of information and influence in job searches and that under some circumstances personal contacts result in better jobs and higher incomes than other search methods (Marini and Fan 1997). This association suggests that influences beyond individual characteristics play an important role in wage determination upon hiring. These influences include the allocation of women and men to different jobs by employers, and informal processes of social contact and interaction via networks that provide access to job-related information and influence (Marini and Fan 1997:602).

The fifth and final major area of study in workplace gender stratification, and a more direct form of discrimination in the work place, is sexual harassment. Research in the field of psychology suggests that about half of women in work or school environments have experienced some form of sexual harassment (Magley et al. 1999). Job gender context, the gendered nature of a job as “traditional” or “non-traditional” (Glomb et al. 1999) and the gender ratio of a workgroup (Swanson 2000; Kohlman 2004), are all related to the frequency of sexual harassment at work.

Sexual harassment is typically divided into two types - quid pro quo and hostile work environment. Quid pro quo harassment refers to “implicit or explicit efforts to make job-related outcomes conditional on sexual cooperation” (Glomb et al. 1999:21). Hostile work environment consists of “offensive, misogynistic, and degrading remarks, behavior not intended to elicit sexual cooperation” (Glomb et al. 1999:21). Hostile work environment may also include consistent advances that are unwelcome and unreciprocated, but fall short of quid pro quo. Legally, sexual harassment is a violation of Title VII of the 1964 Civil Rights Act (Dye 2008). The courts have ruled that sexual harassment does not have to be objectively defined (other than offensive touching which

is a separate crime), but rather satisfy what a reasonable person would believe to be harassing (Dye 2008). In addition, harassing incidents would most likely have to happen over a period of time rather than in a single incident. The legality or illegality of sexually harassing behaviors is not the question here, however. For the purposes of this study, it is the psychological responses to behaviors perceived to be sexually harassing that is of most interest. Whether the behavior is illegal or if it is unwelcome, it would be presumed to be stressful.

Of these five different types of workplace discrimination, two have been found in research to be related to strain. In terms of the “pay gap” between men and women, for example, Greenberg (1990) found that it is possible that pay reduction may lead to feelings of frustration and resentment, which motivate predatory theft. Likewise, recent research findings demonstrate that pay cuts are associated with negative affective reactions to organizational authorities (Greenberg 2002). It is also possible to interpret workplace thefts as direct attempts to correct underpayment inequity by adjusting the balance of valued resources between the worker and the specific source of that inequity. In addition, sexual harassment has been shown to be a strain on women similar to other job stressors in the workplace (Fitzgerald and Shullman 1993; Fitzgerald, Hulin, and Drasgow 1995; Swanson 2000). Glomb et al. (1999) found that sexual harassment by coworkers negatively influenced both job and psychological outcomes (see also Knapp et al. 1997; Magley et al. 1999).

In sum, GST is a relatively new theory that may aid in explaining employee theft by females. The theory is somewhat unique from traditional strain theories in that gender discrimination is listed as a possible form of strain that may lead to crime. Unlike other

theories, however, discrimination is actually stressed as a causal link in GST. In the next chapter, empirical literature relevant to strain, gender discrimination, and crime is explored.

## CHAPTER III

### LITERATURE REVIEW

In order to fill important gaps in the literature, this study will focus on GST's prediction that gender discrimination in the workplace will lead to theft in the workplace among women. The following sections in this chapter will highlight the empirical literature pertinent to GST, strain and gender, gender discrimination, and employee theft. Review of the literature shows that some tests of GST and gender discrimination, and GST and employee theft have been done. Very few, however, have examined gender discrimination as a cause of strain and theft by employees, even though gender discrimination is specifically listed as a cause in the theoretical literature (see Agnew 1992).

#### EMPIRICAL TESTS OF GENERAL STRAIN THEORY

Empirical tests of GST have been conducted on a variety of samples, mostly involving youths (Agnew and Raskin-White 1992; Paternoster and Mazerolle 1994; Brezina 1996; Hoffmann and Miller 1998; Hoffmann and Cerbone 1999; Aseltine et al. 2000; Leeper-Piquero and Sealock 2000; Baron and Hartnagel 2002). Some tests have included college students and other adults (Mazerolle and Piquero 1997; Mazerolle and Piquero 1998; Broidy 2001; Slocum et al. 2005; Lair 2007). These are far fewer, however, perhaps because GST was originally designed to explain delinquency. The theory has also been tested for gender effects (Broidy and Agnew 1997; Hoffman and Su 1997; Mazerolle 1998; Eitle 2002; Hay 2003; Leeper-Piquero and Sealock 2004) and race

effects (Eitle, 2002; Jang and Johnson, 2003; Jang and Johnson, 2005), and across various types of deviant behaviors.

Researchers have found mixed, but overall supportive results for GST. Most of the various types of strains identified by Agnew show a relationship to offending, particularly to violent offending. For example, Mazerolle and Piquero (1997) used vignettes to study youths' offending. They found "only qualified support" for GST with feelings of injustice combined with anger having the highest correlation with intentions to fight. Conversely, Leeper-Piquero and Sealock (2000) found "encouraging support" for GST and noted anger had a significant influence in predicting interpersonal aggression (See also Paternoster and Mazerolle 1994; Mazerolle and Piquero 1998; Aseltine et al. 2000; Mazerolle et al. 2000).

In addition, most tests of GST have examined the relationship between strain and negative emotion, primarily anger. Agnew (1992:49) posited that "strain theory argues that adolescents are pressured into delinquency by the negative affective states-most notably anger and related emotions that often result from negative relationships." He also suggested "anger is a key emotion because it increases the individual's level of felt injury, creates a desire for retaliation/vengeance, energizes the individual for action, and lowers inhibitions, in part because individuals believe that others will feel their aggression is justified" (Agnew 1992:60).

Studies, however, have garnered mixed results regarding the direct and indirect effects of negative emotion on criminal behavior and its ability to mediate the effects of strain. Several studies have found anger to be the primary negative emotion affecting deviance (Leeper-Piquero and Sealock 2000; Broidy 2001; Dingwell 2001; Eitle 2002).

Others suggested that anger actually had no direct effect, but does have an indirect effect on crime (Mazerolle et al. 2000). Other researchers noted that the mediating effect of anger was weak or limited to situations of violence (Mazerolle and Piquero 1998; Aseltine et al. 2000; Mazerolle et al. 2000; Capowich, Mazerolle, and Piquero 2001). Still others found anger did not mediate the effect of strain on crime (Botchkovar et al. 2009).

In terms of negative emotion, Brezina (1996; 1998) in particular has produced several comprehensive studies. He focused his studies on several negative emotions, using both cross-sectional and longitudinal analyses, to examine the effects on deviance. Brezina (1996) used the second and third waves of the Youth in Transition (YIT) survey for his analysis. The cross-sectional analyses were based solely on wave two data, while the longitudinal analyses were based on data from waves two and three. In the cross-sectional results, Brezina (1996) found that strain did indeed have significant effects on various negative emotions. Strain was positively associated with the experience of anger, resentment, anxiety, and depression. In addition, in the longitudinal analysis, he found that delinquency had the effect of alleviating strain and associated negative emotions. Brezina (1996) found that as reported delinquent behavior increased from time one to time two, the effect of strain on anger gradually reduced, though not significantly. This did not, however, hold true for resentment, anxiety, or depression. Brezina (1998) concluded that anger plays an important role in the relationship between strain and delinquency, though social control and social learning should not be ignored. He stated, "Adolescent maltreatment gives rise to delinquency because it erodes important sources of social control, fosters deviant socialization, and generates deep-seated feelings of anger" (Brezina 1998:89).



Work by Brezina (1996; 1998) is consistent with work on negative emotions presented by Agnew (1985; 1992) and by Mazerolle and Piquero (1997; 1998), which also highlights the intervening role of anger. Agnew (1985; 1992) found that anger significantly increased the likelihood of delinquency controlling for social control and social learning measures. Mazerolle and Piquero (1997; 1998) found anger to be a significant predictor of delinquency controlling for deviant peers and moral constraints.

As illustrated by Brezina, studies of GST have used different types of analyses, both cross-sectional and longitudinal. Studies that have relied on cross-sectional data have generally found positive relationships between strain and delinquency (Mazerolle, Piquero, and Capowich 2003; Baron 2004; Hutchinson, Patchin, and May 2005), while longitudinal studies tended to show more mixed results. For example, using the Rutgers Health and Human Development study, Agnew and Raskin-White (1992) found significant support for GST when the data were analyzed cross-sectionally, but found none of the same significant effects when the data were analyzed longitudinally (See also Paternoster and Mazarolle 1994; Hoffmann and Su 1997; Brezina 1998; Aseltine et al. 2000). This could be the result of a “cooling off” period in terms of anger.

In sum, empirical tests of GST have found the theory to be generally reliable at explaining variations in crime, though analyses are mainly limited to delinquency. The following section will discuss studies relating to strain and gender.

## TESTS OF STRAIN AND GENDER

Researchers interested in GST have examined the ability of the theory to explain crime cross a number of individual differences including gender. For example, Agnew

and Brezina (1997) examined gender differences in the strain-delinquency relationship, and focused on interpersonal strain, using the 1990 follow-up survey of the National Education Longitudinal Study of 1988. They hypothesized that while deviance by males tended to be generated by economic strains, deviance by females tended to stem from interpersonal relationships (Agnew and Brezina 1997). In addition, they predicted that males and females would react differently to these strains, with females predicted to use self-defacing behaviors such as drug use. They found interpersonal relationship strain was correlated with delinquency, but contrary to their prediction, the effect of interpersonal relationships on delinquency was stronger for males than for females. Additionally, they noted that interpersonal strain led to violent behaviors for both males and females.

Mazerolle has been particularly active in studying the connection between strain, gender, and delinquency. In a study that utilized two waves of the National Youth Survey (Elliott, Huizinga, and Ageton 1985; Elliott, Huizinga, and Menard 1989), Mazerolle (1998) looked at differences in effects on male and female delinquency both longitudinally and cross-sectionally. Mazerolle (1998) did not find significant differences between males and females in terms of strain producing delinquency. For example, he noted "Noxious relations with adults predicts delinquency for females and not for males, but the measure does not differ significantly between groups" (Mazerolle 1998:85). He goes on to note "the measure for negative life events predicts delinquency for males and not for females" (Mazerolle 1998:86). These results were consistent with other examinations of strain and gender that indicated mixed results with gender differences. For example, Mazerolle and Piquero (1998) studied a similar issue using vignette data.

Again similar to the findings of other studies, Mazerolle and Piquero (1998) found that anger's effect was conditional for males and females upon the type of strain and deviant outcome being presented to the respondent. For example, strain induced anger, for males, led to violent behaviors but not to non-violent behaviors. Conversely, the removal of positively valued stimuli increased intentions to shoplift for females, but not for males.

In other research, Hoffmann and Su (1997) used structural equation modeling to examine variation in stress effects between males and females with two waves of data from the High Risk Youth Survey. Their research focused on the relationship between negative life events, attachment, and delinquent behavior and drug use. They predicted events such as the death of an intimate or other familial problems would equate to an increase in drug use by males. Females, they contended, would be less likely to react to stressful events through delinquency or drug use. Their findings did not support this prediction. They suggested, therefore, that the effects of GST variables on delinquent outcomes were not gendered. In a similar vein, this time using data from the Family Health Study, Hoffmann and Cerbone (1999) considered the effects of strain on delinquency, and examined males and females separately. They found no significant correlation between strain and gender, which suggested strain was felt irrespective of gender. They also stated that in general, the results indicated that after controlling for age, experiencing an increasing number of stressful life events over time was related to a significant "growth" in delinquency for both males and females. While males tended to have a higher baseline, engaged in more delinquent behavior, females tended to have a steeper slope, reacting more strongly to stressful life events (Hoffman and Cerbone 1999:359).

Though gender effects using GST have been tested in a number of ways, studies examining gendered effects within an adult population are rare. Two studies stand out, however, Broidy and Agnew (1997), which will be discussed in this section on general strains and crime, and Eitle (2002), which will be discussed in the following section on gender discrimination and crime.

In 1997, Broidy and Agnew did an exploratory study of gender and crime in which they predicted that women were affected by different types of strain than were men and that their reactions to strain differ as well. The basic purpose of Broidy and Agnew's (1997) study was to explain how GST is suitable for explaining the higher rate of crime by males relative to females. In an extensive review of the psychology and sociology literature, Broidy and Agnew (1997) suggested males and females had a different conception of fairness. They contended that while "males focus more on the outcomes of an interaction, females focus more on how people involved in interactions are treated" (Broidy and Agnew 1997:279). Additionally, the researchers contended that females experience different types of strain and suggested females are "more likely to report...gender-based discrimination" (Broidy and Agnew 1997:279). Broidy and Agnew (1997) further contended that certain strains outside the home, such as gender discrimination, in combination with an environment with less social control, may be conducive to deviant behaviors like shoplifting.

Broidy and Agnew (1997) proposed five reasons for higher rates of crime by males to aid researchers in future study: (1) females are less likely than are males to have a sense of mastery and self-esteem, which may reduce females' ability to effectively cope with strain, (2) females are higher in emotional social support, (3) males tend to have

greater opportunities for crime, fewer social controls, and differential social learning than females, (4) differences in the process of socialization, such as women's anger being viewed as less appropriate than men's, may favor criminal behaviors for males more than for females, and (5) males tend to have greater number of delinquent peer associations than do females.

Broidy and Agnew (1997) noted that the types of strain most likely to apply to women and explain their involvement in crime are the failure to achieve financial expectations, the failure to be treated in a just and fair manner, and a loss of positive ties to others. In addition, they suggested women are most likely to resort to criminal behavior when the aforementioned strains are experienced in combination with a lack of non-deviant coping mechanisms, when there is a presence of criminal opportunities, when they are low in social control, and when they are predisposed to crime (Broidy and Agnew 1997: 298). Furthermore, they noted the role of gender stratification in strain production, saying: "women's oppression in various social arenas may play an important role in the generation of strain, and ultimately criminal behavior" (Broidy and Agnew 1997: 298). As noted by Broidy and Agnew (1997:276), "GST is in a good position to exploit the observation that females suffer from a range of oppressive conditions and that this oppression is at the root of their crime."

A study by Jang (2007) showed support for Broidy and Agnew's contention that males and females experience strains differently and that the emotional responses to those strains are different for males and females. For example, Jang noted, "African American women were less likely than African American men to turn to deviant coping strategies

when they experienced strain partly because their strains were more likely to generate self-directed emotions” (Jang 2007:523).

Not all researchers have found support for the notion that males and females experience strain differently, however. Leeper-Piquero and Sealock (2004) found mixed results when testing Broidy and Agnew’s GST revision. They specifically noted no differences in the amount of strain experienced by males and females, but that differences exist in the role of emotion. While anger mediated the relationship of strain to crime in females, it did not in males. They also noted the need for more research on various types of strain.

In two other studies, Lair (2007) and Slocum, Simpson, and Smith (2005) looked at samples of women and the role of strain in explaining their offending. In Lair’s (2007) dissertation on chemically addicted women, she examined strain, anger, and negative emotions on criminal outcomes. Lair (2007) found that as the number of strains increased, the likelihood of criminal behavior also increased. Additional results from Lair (2007) suggested that women who reported issues with temper were significantly more likely to commit crime controlling for strain, other negative emotions, social control, and demographics. These findings supported the basic tenets of GST. Lair (2007) also noted that her findings did not support the notion that internalized coping such as depression and negative emotions, other than anger, were negatively associated with crime as proposed by Broidy (2001) and Sharp, Brewster, and Love (2005).

In a study of incarcerated women, Slocum, Simpson, and Smith (2005) also found support for the GST’s prediction that different strains may lead to different coping mechanisms. For example, personal victimization led to more violent behaviors, while

neighborhood-type strain led to drug use. Their study supported GST's prediction that as strain increases, and is compounded, individuals are more likely to engage in crime. They also noted that individuals will engage in different illegitimate coping mechanisms based on the types of strain experienced.

In sum, the findings from studies with juveniles have produced mixed results relative to gendered effects of strain on crime. Recent studies on adult populations, however, suggested that GST is helpful in understanding both why men and women are involved in crime, and why men and women are involved at different rates. The next section of the paper will examine the research on one type of strain that might be important in furthering our understanding of the relationship of gender, strain, and crime as well as gender discrimination in an adult working population.

#### TESTS OF STRAIN AND GENDER DISCRIMINATION

GST suggests that both strains and individuals' responses to them may be gendered (Broidy and Agnew 1997; Belknap 2007), but very few studies of GST have tested the theory using gender discrimination as a type of strain (Langton 2004). One of the first studies on strain, gender stratification and crime by Cernkovich and Giordano (1979), was influenced by Frieda Adler's (1975) seminal work *Sisters in Crime*. In a study of high school youth, the authors found that gender discrimination, as measured by blocked educational and occupational goals, was not a significant predictor of delinquency by females. Their study did not, however, include subjective measures of discrimination nor did they test what are now the core aspects of GST.

One notable exception to the lack of research in this area is a study by David Eitle (2002). He specifically examined the relationship between the strain of perceived gender oppression and criminal activity by females. Using interviews of young adults with substance abuse issues, Eitle (2002) explored whether discrimination experiences were related to criminal activity and/or substance use disorders. Eitle (2002) used a variation of the discrimination scale developed by Kessler and McLeod (1984) to examine what they termed as major and day-to-day discrimination. Major discrimination involved acts in which the respondent had been treated unfairly, while day-to-day discrimination involved items such as not being treated with courtesy or respect, or being trusted. Some forms of discrimination were found to be significant predictors of crime and substance use disorders. Eitle's (2002:439) study revealed that negative life events and the perception of being a victim of major "gender-based discriminatory events" increased the likelihood of female criminal involvement, however day-to-day discrimination did not have a significant effect on deviant behavior. Though unique in investigating gender-based discrimination, strain, and crime, the analysis did not examine the mediating effects of negative emotion and only included basic measures of "objective" strains.

In terms of the connection between strain, anger, and crime by gender, some research suggested males under strain felt more anger than women under the same strain, who typically felt depression (Hoffman and Su 1997; Morgan 2006). Studies by Mirowsky and Ross (1995) and Dingwell (2001) suggested, however, that women may in fact experience more anger than men under the same strain. Indeed, Dingwell's (2001) study of strain, equity, anger, and crime found that women reported more anger than men and were more likely to engage in criminal behavior when presented with a scenario that



described inequity. In his study, Dingwell (2001) measured inequity with two vignettes describing a negative life event (poor relationship) and perceived injustice (job promotion). He found that strain influenced the degree of anger experienced, and anger increased the probability of criminal behavior. Moon, Hays, and Blurton (2009) also included gender discrimination in their study of emotional punishment by teachers using a sample of 294 university students. They operationalized gender discrimination using five items describing discrimination in general (e.g. "Have you been threatened or harassed?" Moon et al. 2009:105). Moon et al. (2009) found that gender discrimination had a significant and positive effect on anger and anger had a significant positive effect on deviance. Gender discrimination was a not then a significant, direct predictor of deviance.

In sum, a review of the literature on gender discrimination suggested that gender discrimination and its relation to crime had not been adequately tested against the background of GST. Therefore, this study attempts to fill those gaps in the literature by examining gender discrimination and theft by employees. Likewise, this study controls for prior offending, impulsivity, and low social control (commitment), as suggested by Agnew (1992). Some aspects of the theory are not examined here, for example the effects of clustering and recency, because, while important, they are not main tenets of the theory. In the next section of the paper, employee theft is examined as one possible outcome of gender discrimination at work.

## RESEARCH ON THEFT IN THE WORKPLACE

In a discussion of gender stratification and crime, the workplace is the perfect arena for study. While society as a whole is stratified by gender, its effects are seen dramatically in the work environment, particularly when women work in a male dominated environment (Massey 2007). The section will discuss: (1) what is meant by theft by employees, (2) the extent of theft by employees, (3) theft by females in the workplace, and 4) existing research on motivations for theft by females in the workplace.

### *Theft by Employees*

Theft by employees is defined as “the unauthorized taking, control, or transfer of money and/or property of the formal work organization that is perpetrated by an employee during the course of occupational activity” (Hollinger and Clark 1983:2). Theft by employees can occur in both the blue collar (primarily manual labor and manufacturing) and white-collar (insider trading, embezzlement, stock and securities fraud, and tax evasion) industries. Some industries, retail for example, can experience both blue collar (simple theft by employees of merchandise) and white-collar (management illegal use of stock information) crimes.

### *Extent of Theft by Employees*

Theft by employees has been of growing concern for researchers over the last decade because of its cost, its extent, and crimes related to it. In terms of cost, it is estimated that between \$5 billion and \$10 billion a year are lost to the retail industry alone due to workplace theft (Greenberg 2002; Hollinger 2002; Mustaine and Tewksbury

2002; Friedrichs 2007). This figure would be decidedly higher if all industries were included in the calculations (Friedrichs 2007).

The large cost is related to the large number of employees who steal at work. As part of the annual Hayes International survey, 23 retail chains with over 14,000 stores, and approximately 1.85 million employees, were surveyed in 2006. The survey indicated that one in every 27.9 employees was caught stealing in 2006 with over \$56.6 million recovered (Hayes international 2006). The above figures represent those employees who were caught and do not represent the entire scope of the problem. Even so, the monetary damage resulting from employee related theft greatly outweighs that of external thieves. For every one dollar stolen by shoplifters, eleven dollars are stolen by employees (Taylor and Prien 1998).

Monetary losses are but one type of loss suffered by retailers as a result of employee theft. Several other costs related to workplace crime include lost productivity, lower employee morale, costs associated with hiring and training new personnel, and the costs associated with maintaining a security or loss prevention staff to deter theft (Payne and Gainey 2004). In addition, there are costs beyond those to the retail industry. Ancillary costs to society include for example, business failures, lost jobs, higher taxes, and higher prices (Lipman and McGraw 1988).

Research on the causes of theft by employees has covered the spectrum of macro, micro, and integrated explanations. Notable studies over the last two decades include the use of routine activities theory (Mustaine and Tewksbury 2002), economic marginalization theory (Heimer 2000), anomie theory (Weisburd, Waring, and Chayet 1995), deterrence/rational choice theory (Paternoster and Simpson 1996), self-control

(Langton, Leeper-Piquero, and Hollinger 2006), life-course theory (Uggen and Staff 2001), power and control theory (Uggen 2000a), equity theory (Greenberg 1990; Crutchfield and Pitchford 1997), organizational theory (Powell 1996; Edelman and Suchman 2007), informal social control theory (Hurias, Uggen, and McMorris 2000), social bond theory (Sims 2002), techniques of neutralization (Leeper-Piquero et al. 2005), differential association theory (Leeper-Piquero et al. 2005) and strain theory (Broidy and Agnew 1997; Eitle 2002; Langton and Leeper-Piquero 2007).

### *Extent of Crime by Females in the Workplace*

It is important to examine the extent of crime by females in the workplace for two reasons. First, we know little about crimes by females in the workplace due to the tradition of mainstream criminologists to focus on men when explaining and measuring crime of any type (Messerschmidt 1993). Second, concern about increases in women's offending in the workplace has grown, primarily since the 1980's, as more women were hired into low-wage positions while others were promoted into high-level jobs (Cernkovich and Giodano 1979; Flowers 1987; Daly 1989; Steffensmeier et al. 1989).

The incomplete nature of official records makes examination of the extent of crime in the workplace difficult. Many crimes go unreported or are handled in-house through internal disciplinary means, such as firing. In addition, fraud and other more severe forms of white-collar crimes are often plea-bargained to misdemeanors. In addition, even when in official sources such as the Uniform Crime Report, often they list crimes for males and females by crime type, but not by crime location. Reliance on official data then makes it difficult at best to determine the extent of crime in general

perpetrated by women, and even more difficult to determine their true involvement in workplace theft.

Despite the difficulties, some studies have used official data to explore crime by females. With respect to crime in general, Lo and Zhong (2006) noted that women are far less likely overall to commit crimes than are men. With the exception of prostitution and running away from home, female arrestees are considerably underrepresented in both Index and non-Index offenses. They noted, however, that the gap between men and women is least in property crimes. Similarly, Flowers (1987) found female involvement in serious crime is largely concentrated in property offenses. Furthermore, empirical evidence suggests that professional shoplifting is a property crime in which female offenders frequently engage (Flowers 1987:99). Flowers (1987:74) reported also that the crime in which the two sexes are closest in arrests was fraud, with females accounting for nearly 43% of the total.

Continuing the focus on property crimes, according to Flowers (1987:75) males accounted for 69% of larceny arrests and 64.4% of embezzlement arrests in 1986. These figures changed somewhat over the past two decades. Coleman (2002:18, 214) noted that by 1999, nearly half (49.2%) of those charged with embezzlement and 43.6% of those arrested for fraud were women. The Uniform Crime Report shows that in 2006, men accounted for 62.3% of all larcenies and 47.3% of all embezzlements (UCR 2008). In fact, by 2006, embezzlement had risen by 28% for women over 1997 even though overall property crime arrests had decreased for both men and women (UCR 2008). In addition, as of 2006, women embezzlers have surpassed men in percent increase.

The findings for embezzlement are interesting. By definition, embezzlement differs from larceny by the added feature of “trust” (Coleman 2002; Friedrichs 2007). This type of crime, therefore, most often occurs in the workplace or business environment where employees are entrusted with goods and money. Unlike larceny and fraud, which can occur outside the workplace as well as within the workplace, embezzlement may be a more direct measure of crime by employees. The figures above indicate that, in general, women still commit less crime than men even among the property offenses. The exception is embezzlement. The findings about gender differences in property crimes and the high rate of women’s involvement in embezzlement raise interesting questions about the reasons for offending by women, in general, and the reasons for offending in the workplace, in particular. Additionally, Flowers (1987) noted that women committing white-collar crimes, like men, vary in their occupational status, from top executives to secretaries; they occupy jobs in large corporations, small businesses, and government offices. The next section discusses theories of female offending in particular.

#### *Theories about Crime by Females in the Workplace*

Prior research has investigated the characteristics of theft by employees by demographic variables (See Hollinger and Clark 1983; Mustaine and Tewksbury 2002), variables related to workplace control and pay structures (Greenberg 1990; Huiras et al. 2000), variables associated with prior socialization and workplace occupational placement (Uggen 2000b; Bouschey and Cherry 2003; Wright and Cullen 2004), and violence in the workplace (Fisher and Gunnison 2001). Most of these researchers came to

the conclusion that no single trait or theory could explain all occurrences of employee offending. Research and theorizing does seem to coalesce around a number of interesting ideas that suggest that Agnew's general strain theory, however, is a viable explanation due to its emphasis on the psycho-social nature of deviance and its acknowledgement of stressors in the workplace. For example, the strain one experiences occurs irrespective of race or class, a failure of earlier strain theories.

In addition, Agnew's general strain theory offers insight into the type of controls needed to discern the effects of strain from those of exogenous variables. For example, research postulates employment leads to a reduction in crime. It has been suggested that employment may act as a form of institutional commitment, or societal bond, especially in adults, that reduces one's involvement in crime (Uggen 2000a). Likewise, some research contends employment may build social capital that, in turn, bonds young adults to social institutions (See for example Gottfredson and Hirschi 1990; Sampson and Laub 1997; Wright and Cullen 2004). Thus, employment is generally presumed to decrease criminality. However, this may not be the case for women and the crimes of embezzlement, fraud, and larceny as these can happen in the workplace, particularly when they are confronted with the strain of discrimination.

The most prominent views on crimes by women are those associated with increased opportunity (the liberation hypothesis), the women's movement, economic distress (economic marginalization hypothesis), the femininity factor (women are nonviolent so their crimes are nonviolent) and the increased pressure of women to provide, either as the head of a single parent family or to assist the household with a second income (Flowers 1987:141; Heimer 2000). In terms of opportunity and the

workplace, opportunities for crime present in the workplace provide not only a suitable target for those intent on committing theft, but also for negative work associations with others that may commit theft. These associations, in combination with opportunity, could increase the chance for crime through peer pressure or learned techniques. Contrary to the liberation hypothesis, however, Daly (1989:771) noted that the women in her study were “more often motivated by a need to meet their responsibilities as wives or mothers” rather than a mere case of being provided with opportunity. For example, Daly (1989) found that men and women differed in their motives for theft, particularly in the importance of self and family need-based justifications.

In an attempt to explain increases in female offending, Simon and Landis (1991) argued that women were committing fraud, embezzlement and forgery more often because their participation in the labor force provides them with greater opportunities to commit these offenses. According to Holtfreter (2005), Kathleen Daly’s 1989 study likewise implied that gender contributed to opportunities for certain types of occupational fraud, but not others. Daly’s (1989) analysis showed that the sample of white-collar offenders she examined, as a whole, did not fit the stereotypical conceptualization of a high status white-collar offender. Daly (1989) found that women were more likely to have lower status occupations (e.g., clerical), while men were more likely to be employed as managers or administrators. This is consistent with Holtfreter’s (2005) analysis some sixteen years later that more minor white-collar crimes were committed by women due to their occupational status, while men committed the more serious white-collar crimes. In addition to lower status jobs, compared to their male counterparts, the women in Holtfreter’s sample also tended to have lower levels of education and income; factors



also indicative of higher rates of crime in the workplace. Looking at female offending from a strain theory perspective, Langton and Leeper-Piquero (2007) noted that strain had a positive but non-significant effect when predicting embezzlement and credit fraud, but was non-significant and negatively correlated with tax fraud. Coleman (2002) agreed that increases in female crime in the workplace are related to the growing number of women in lower-wage jobs, and increased pressure for women to provide financial support.

Alternatively, in a study of crime by females in 69 countries, Steffensmeier et al. (1989) looked at the equalization of gender roles, greater economic marginalization of women, expanding opportunities for women, and the greater visibility of crimes by females on crime rates of women by country. They found stronger effects for expanding opportunities and greater visibility of female crime than for equalization of gender roles and economic marginalization. Heimer (2000:445) also studied economic marginalization of women but noted it *has* increased the financial hardship of women and narrowed the gender gap in crime.

In recent years, women have attained higher positions in the service and retail industries giving them greater opportunities to commit white-collar crimes. They still primarily hold lower status positions than men, however, which lend themselves to simple larceny and fraud (Daly 1989; Belknap 2007). Using the National Longitudinal Survey of Youth, Crutchfield and Pitchford (1997:109) found that the nature of employment (marginal employment) and the character of the labor market may lead to increases in crime. They found this is due primarily to job instability and that

“occupational stratification creates collective processes that we believe lead to lifestyles conducive to crime” (Crutchfield and Pitchford 1997:110).

In terms of motivation for workplace crime, then, a number of theories have developed over the years. Many of these theories focus on factors related to women’s position in the work place that could be related to strain. Women do not have equal access to jobs that would secure higher pay and benefits, and hence, a living wage (Daly 1989; Belknap 2007). Also, women may have a lower stake in commitment to the organization because of more temporary employment (Hurias et al. 2000). In terms of social bonding, the strain of a low paying temporary position may lead to a lack of commitment and hence precipitate crime (Akers and Sellers 2009). Men in authority positions may have a greater stake in conformity, which may lead to lower crime rates among management than among lower-wage workers.

## CONCLUSION

Based on the review of the literature, there are clear gaps that need to be filled in the literature on GST. In particular, the role of gender discrimination as a form of strain and its relationship to theft by employees has received little attention. Indeed, within the category of failure to achieve positively valued goals and the disjunction between just/fair outcomes and actual achievements, very little has been accomplished in terms of gender discrimination and even less when applied to the workplace.

This study will examine the degree to which gender discrimination is perceived as strain, whether or not strain leads to negative affective states, the degree negative affective states lead to theft, and the degree to which males and females differ in terms of

these relationships. Based on what has been accomplished in the literature to this point, the following hypotheses will be tested. They will be tested for both males and females in order to test for significant differences by gender in any of the effects (See figure 1 for heuristic model):

H1: The objective strains resulting from the sexual harassment, the “Pay Gap”, the “Glass Ceiling”, “Sticky Floors”, and the “Glass Escalator” experienced in the workplace, will be positively and significantly related to theft in the workplace.

As women enter the labor market, it is predicted there will be some measure of gender discrimination, particularly in jobs typically held by males (e.g. construction or police work). Females, therefore, are predicted to experience some measure of discrimination as an objective form of strain. In addition, there is a potential for males to experience gender discrimination in the workplace and hence the potential for objective strain for them.

H2: Objective strains will be positively and significantly related to subjective strains.

A potential result of objective strains is the subjective evaluation of those strains as intentional, harmful, or unjust/unfair (Agnew 2001). As noted by Landau (1998) subjective strain is the link between two sets of objective data, the independent variable (objective strain) and the dependent variable (the coping mechanism of crime).

H3: Subjective strain will be positively and significantly related to the negative emotional states of anger, frustration, depression, and anxiety.

Of interest here are negative emotional states, specifically anger, frustration, anxiety, and depression, which derive from situations of discrimination at work perceived as injurious to the respondent. Although anger is thought to be the most prominent

negative emotion associated with crime, frustration, anxiety, and depression are likewise important for study. Anger is most likely when there is a personal, unjustified affront (Morgan 2006) consistent with subjective strains. Unlike anger, frustration does not require that the unjust situation have been caused directly by another or viewed as particularly harmful and may be more important with forms of gender discrimination not necessarily viewed as high in magnitude. For example, while incidents of sexual harassment may produce anger, situations involving the Glass Escalator may only produce frustration. Depression may also be important, as this emotion is most often associated with females and other-directed coping mechanisms (Broidy and Agnew 1997).

H4: Negative emotional states will be positively and significantly related to theft by employees.

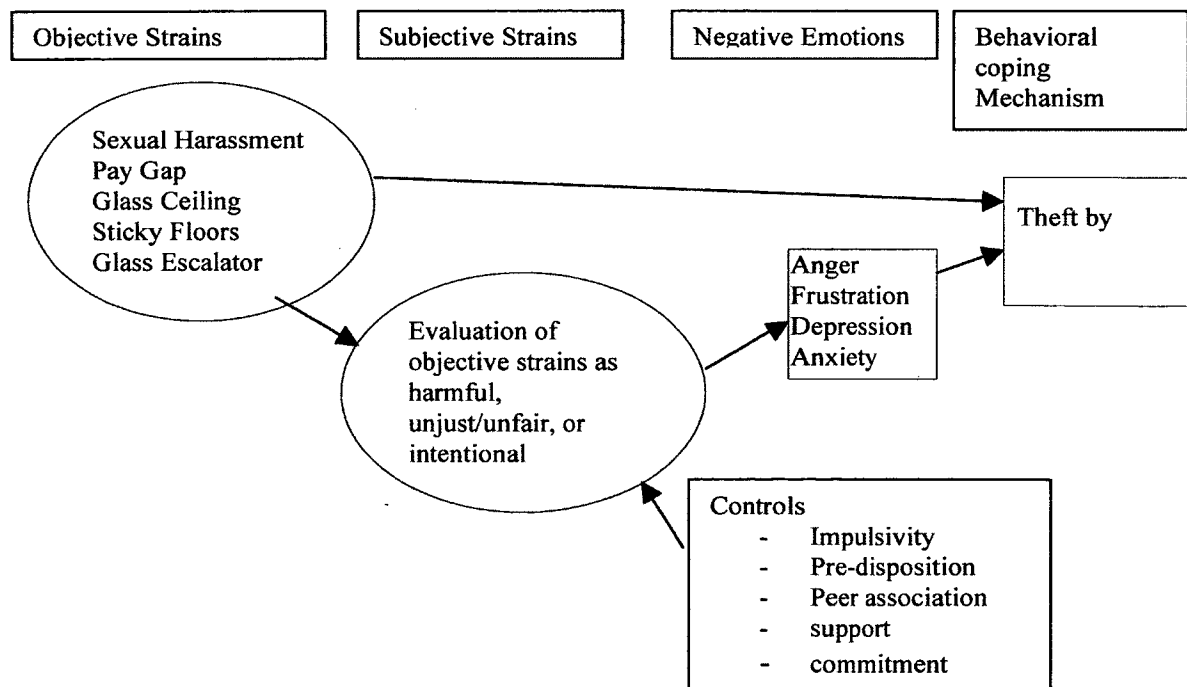
Although Agnew (1992) posited objective strain could be directly related to crime coping behaviors, the greater potential was for these strains to be evaluated subjectively and mediated through a negative emotional state (Agnew 1992). As noted by Agnew (1992), negative emotions are predicted to result in crime coping behaviors as an adaptation to strain because they increases feelings associated with injury. As noted earlier, the relationship is predicted to be stronger for subjective strains than for objective strains. The negative emotions most frequently associated with the crime coping behaviors of theft are the aggressive-related (Berkowitz (1993) emotions of anger and frustration.

H5: The effects of subjective strains, objective strains, and negative emotional states will remain when controlling for low social control (commitment), delinquent peer

association/ differential association, social support from friends and family, self-control in the form of impulsivity, and past criminal history.

As noted by Agnew (2001) low social control and differential association are necessary controls when examining strain theory to avoid overestimating the effects of strain. Agnew and Raskin-White (1992) also cited the importance of the presence of social support in the decision to commit crime. A lack of support may lead to the decision to use crime as an adaptation to strain. Recent studies have also noted the importance of self-control in theft related behaviors (e.g. Langton, Leeper-Piquero, and Hollinger 2006) and therefore must be controlled to differentiate low self-control from situational strain. Likewise, past theft behaviors may be indicative (Mustaine and Tewksbury 2002) of workplace theft and should be controlled. Additionally, physical controls limiting opportunity or a lack of controls providing opportunity should be controlled.

Figure 1. Heuristic Model



## CHAPTER IV

### METHODS

#### SAMPLE AND DATA

The sample consists of college students from a large mid-Atlantic university. As noted by Langton et al. (2006), while college students may not be an appropriate sample for some applications, their prevalence as part-time and full-time lower level workers makes them suitable for this study. In addition, many recent tests of various criminological theories have used a convenience sample of college students (e.g., Brezina, Piquero, Mazerolle 2001; Dingwell 2001; Pogarsky and Piquero 2003; Langton et al. 2006; Leeper-Piquero et al. 2005; Morgan 2006; Payne and Chappell 2008; Rebellon et al. 2009).

The data were collected using a survey distributed during the Spring session of 2011 in 13 different Criminal Justice and Sociology introductory classes. Introductory classes, as electives for many majors, were predicted to have a greater diversity of students in terms of majors and gender than upper level courses. Prior to the administration of the survey, it was pre-tested with a student sample of 25 (10 males and 15 females) to ensure there were no language or data collection issues. Several wording and organizational issues were identified and corrections were made.

The survey was divided into two major sections in order to collect data about discrimination in the workplace in two ways (See Appendix A). The first section uses vignettes that describe five scenarios involving discrimination in the workplace. Respondents then answer a variety of questions about how they perceive the situation and

how they would react to the situation if it happened to them. Everyone in the sample, regardless of work history, completed this section of the survey. Vignettes have been used for this purpose in previous studies to some positive effect (See Mazerolle and Piquero 1997; Mazerolle and Piquero 1998; Dingwell 2001; Morgan 2006; Rebellon et al. 2009). The second section of the survey asked about work history and personal experiences of workplace discrimination. Only those respondents who had worked completed this section of the survey.

The survey consisted of a total of 99 questions, soliciting responses to questions that measured a variety of demographic factors, a variety of control factors, perceptions of workplace discrimination scenarios, and actual behaviors associated with experienced discrimination in the workplace. The survey included questions on work history, strain due to discrimination in the workplace, negative affective states, attitudes toward theft by employees, past deviance, impulsivity, commitment, social support, actual incidents of theft by employees.

Collecting data on both reactions to vignettes describing discrimination and experiences at work allowed for two measures of objective strain, subjective strain, negative emotions and theft. Specifically, objective strains were assessed through actual reported incidents of gender discrimination in the workplace and a hypothetical scenario presented in the vignette. Likewise, subjective strains and negative emotional states were assessed through a series of follow-up questions based both on experienced gender discrimination and the hypothetical vignette scenario. Similarly, the dependent variable of theft by employees was assessed through reported incidents of theft and respondent's reports of what they would do given the hypothetical vignette scenario.

The author handed out the survey to 400 students with the understanding that it was voluntary and anonymous. Surveys from 361 students were completed and returned. To satisfy the assumptions of regression analysis, the data were checked for outliers, normality, and linearity. Frequencies and boxplots were then run on each of the variables to check for outliers. Nine cases were identified as outliers and dropped from the analysis. An additional nine cases were identified as having coding errors, which were then corrected, resulting in a total sample size of 352. This sample size provided satisfactory statistical power for regression analysis.

Respondents ranged in age from 18 to 55 ( $N = 352$ ) with 85% of the sample ranging from 18 to 23. Females accounted for 58.5% ( $N = 206$ ) and males accounted for 41.5% ( $N = 146$ ) of the sample. Ninety one percent ( $N = 320$ ) of the sample indicated they were single and 54% ( $N = 190$ ) indicated their race was White. Thirty three percent of the sample listed their race as African-American ( $N = 117$ ), while 13% indicated their race as Hispanic, Asian, or Other ( $N = 45$ ). Due to the small number of Hispanic, Asian, and Other, race was recoded as White (1) and Non-white (0). Additionally, 89% ( $N = 315$ ) students indicated they work now or have worked in the past.

## MEASURES

Not unexpectedly for measures of theft and discrimination, several key variables were positively skewed. These items were dichotomized for use in logistic regression, which is more robust to issues of normality. Although the predictor variables in logistic regression may be continuous, categorical, or discrete, all of the primary predictor variables were dichotomized for consistency and to overcome issues of linearity,



distribution normality, and within-group equal variances (Mertler and Vannatta 2005) and to examine the dichotomous dependent variable. It is understood that some variation was lost in the process. The cutoff for the dichotomization followed the example set by Paternoster and Simpson (1996), in that on a scale of 1-10, the scale of interest (either high or low depending on the direction of the measure) would be coded as 1 with all else being coded as 0. As noted by Paternoster and Simpson (1996:560) “This is essentially a participation or prevalence analysis with the dependent variable interpreted as the probability that someone would intend to commit one act...”. In addition, both square root and log 10 transformations were used to account for non-normality, but the results were not normally distributed. While dichotomous results can overestimate significant results lightly, this did not appear to be a problem with this study.

### *Dependent Variables*

Two dependent variables were used in this study - intentions to steal and actual incidents of theft at work. The “intentions to steal” measure was developed and used for three reasons. First, the intent was to use two methods for gathering data about strain and employee theft. The use of vignettes asks respondents to imagine their response to a situation. Second, it was believed that not everyone in the sample would have had experience with work. Third, even those who had worked, many may never have committed an act of theft. Intentions to steal were therefore measured and examined along with actual reported incidents of theft by employees. Analysis shows that two thirds (N = 239) of the sample indicated they had committed some actual offense at work, the vast majority of which were minor “grazing” type offenses. Thirty five percent

admitted to theft of cash ( $N = 109$ ). Comparisons are made between the independent variables and both dependent variables to better understand the dynamics of gender discrimination and theft by employees.

The first dependent variable, capturing intentions to steal at work was developed from questions in the vignette section of the survey. Vignettes have been used successfully in prior studies to measure strain, anger, and assault (e.g. Mazerolle and Piquero 1997), and are in fact recommended by Agnew (2001:347) in this type of study when official theft data are not available (See also Finch 1987; Schoenberg and Ravdal 2000). There were five separate vignettes covering the results of gender discrimination in the workplace; sexual harassment, the “pay gap”, the glass ceiling”, “sticky floors”, and the “glass escalator”. Each vignette was written in the first person “you” format, to elicit a more personal, and hopefully valid, response (See Appendix for example). The second part of the vignette, pertaining to the dependent variable, asks the respondent to indicate whether, as a result of the unfair treatment, he or she believes theft is justified. The respondent was then asked how likely it would be for him/her, based on the treatment, to engage in theft “Under the circumstances, I think keeping it would be justified”. The responses were measured on a four-point range from 1 to 4 (1 = never, 2 = somewhat, 3 = definitely, 4 = very likely). The intentions to steal scores were combined into an intentions to steal theft justification scale. The items were run through factor analysis and loaded onto one factor explaining 79.58% of the variance ( $KMO = .866$ , Chi Square = 1502.20,  $df = 10$ ,  $p = .000$ ) with a Cronbach’s Alpha of .934 (See Table 1 for factor loadings).

The second dependent variable – theft by employees – was taken from responses to questions in the second half of the survey. These questions were asked only of those individuals in the sample who have been employed. Actual incidents of theft by employees were measured by asking the respondent to indicate how many times he or she committed various forms of theft. The eight theft-by-employees items ranged from simple pilferage to the white-collar crimes of stock and information fraud. The items asked the respondent if they have committed any of the listed offenses in the workplace and were scored on a four-point scale (0 = never, 1 = once or twice, 3 = 3 to 10 times, 4 = more than 10 times). Factor analysis was conducted to determine if there was an underlying theme or consistent category of “theft”. The analysis produced 3 components. One, which included most of the basic theft items and two others: theft from other employees (item 54) and theft by upper management (item 59) loading separately (KMO = .819, Chi Square = 558.37,  $df = 28$ ,  $p = .000$ ) and were not used in the final measure. The six basic theft items were combined and loaded into a single factor, measuring the same underlying construct, which appears to be typical blue collar theft, with a Cronbach’s Alpha of .785 (See Table 1).

Table 1. Factor loadings for dependent variables

Variable/Description	Factor Loadings
<b>Dependent Variables</b>	
<i>Intentions to steal</i> (Alpha = .934)	
Vignette 1 (Sexual Harassment)	.869
Vignette 2 (Pay Gap)	.886
Vignette 3 (Glass Ceiling)	.934
Vignette 4 (Sticky Floors)	.912
Vignette 5 (Glass Escalator)	.858
<i>Actual theft</i> (Alpha = .785)	
Unauthorized eating or taking of food (that is NOT common practice)	.573

Table 1. Continued

Variable/Description	Factor Loadings
Taken something home that should have been thrown away	.504
Taken something (lunch, clothing, cash, merchandise, etc.) from another employee without permission	.794
Taken cash, merchandise, food, or other products from the company without permission	.688
Given unwarranted or unauthorized cash, merchandise, products, or food to a friend, coworker, or relative (passing, sweetheart deal, underringing, voiding).	.627
Used a computer system or paper system to obtain cash, merchandise, products, food or a refund fraudulently (refund credit, using someone else's credit card, walk up refund, voucher or petit cash fraud)	.517
Manipulated a price tag, ticket, or register to pay a lower price than authorized	.703
Made money through manipulating company stock investments using confidential information	.800

### *Independent Variables*

Key independent variables are those involving objective and subjective strains. Objective strains are those that are usually disliked by most members of a particular group (Agnew 2001). Objective strains are measured in two ways – perceived and experienced. The first measure of objective strain was perceived strain and came from using questions following the vignettes and thus answered by everyone in the sample. In the vignette, the person representing the respondents in the vignettes were subjected to forms of workplace discrimination, which were designed to represent examples of inequity, focusing on the disjunction between just and fair outcomes and actual outcomes. Respondents were then asked to rate, on a scale of 1 to 10, the level of truthfulness of the following statement: “You would find it stressful.” Responses to these questions from each of the vignettes were analyzed as both separate forms of discrimination and combined in factor analysis to form a total discrimination scale ranging from 0 to 50,

with the higher scores indicating greater perceived objective strain. Factor analysis for the total discrimination scale produced one factor explaining 64.1% of the variance (KMO = .851, Chi Square = 762.61,  $df = 10$ ,  $p = .000$ ) and an alpha of .852 (See Table 2 for factor loadings).

Table 2. Factor loadings for perceived objective strain variables

Variables	Factor loadings
(Alpha = .852)	
Vignette 1 (Sexual Harassment)	.726
Vignette 2 (Pay Gap)	.788
Vignette 3 (Glass Ceiling)	.863
Vignette 4 (Sticky Floors)	.861
Vignette 5 (Glass Escalator)	.757

The second measure of objective strains, in the form of experienced strains, was derived from questions asking the respondents if they have experienced certain discriminatory acts in the workplace. Respondents were asked to “please indicate how many times the following has happened to you when at your current or past jobs.” The list of 12 items ranged from a score of 1 to 4 (0 = never, 1 = once or twice, 3 = 3 to 10 times, 4 = more than 10 times). The higher scores indicated a higher frequency of discriminatory events and greater objective strain. As most of the respondents in the sample are relatively new to the work environment, it was assumed most of the events would be fairly recent satisfying the recency requirement. The questions were analyzed as both separate forms of strain and combined to form an overall experienced discrimination scale. The questions were gender-neutral and answered by both males and females. Factor analysis produced two factors explaining 55.7% of the variance. The

factors were divided into institutional discrimination (promotion, low pay, lesser job) and hostile work environment discrimination (sexual harassment, excessive dates, coercion). The scaled factors produced Cronbach's Alphas of .894 with "transfer" removed and .640 with no improvement, respectively (See Table 3 for factor loadings).

Table 3. Factor loadings for experienced objective strain variables

Item description	Factor Loadings
Institutional discrimination (Alpha = .894)	
Although better qualified, I have been passed up for promotion because of my sex.	.772
Others have been promoted ahead of me because they were of the opposite sex.	.756
I believe I was given a lower paying job because of my sex.	.746
Because of my sex, I was assigned a job far beneath my qualifications.	.471
I have been turned down for promotion because my supervisor is the opposite sex.	.690
I was not given the same salary as my equally-qualified coworkers because of my sex.	.684
Hostile work environment discrimination (Alpha = .640)	
I have been inappropriately touched by a coworker or supervisor	.436
I am constantly being asked out on dates at work, even though I say no.	.756
My supervisor has subtly threatened or coerced me in a sexual manner.	.526
I have actually received more pay because of my sex	.453
I have actually received a promotion because my sex is different than my coworkers.	.657

These two ways of measuring objective strains are suggested by Agnew (1992:347):

[Researchers] should compare the criminal behavior of those experiencing strain. As an alternative, researchers can present people with vignettes describing these strains and then ask them how likely it would be to respond with crime.

Assessing objective strains in two separate formats will overcome limitations with using any one particular format. For example, although the best data should be obtained by those who have had previous experience with gender discrimination in the workplace, those who have no or limited experience with actual discrimination can still respond to the perceptual (attitudinal) part of the survey.

Subjective strains, a second key category of independent variables, are those that are perceived by the person to whom they happened as harmful, intentional, or unfair/unjust. Most studies employing GST do not measure strain subjectively and those that do tend to use their measure of negative emotional state as a proxy (See Morgan 2006 for exception). Agnew (2001), however, notes that subjective strain is separate from its emotional response. Therefore, asking the respondent whether he/she thought common strain producing situations in the workplace involving gender discrimination were harmful, intentional, or unjust/unfair measured subjective strains. These measures were designed to indicate examples of goal blockage (respondent being denied a promotion; denied a certain job), the removal of positive stimuli (being paid less than employees of the opposite sex), and the presence of negative stimuli (been sexually harassed by a boss or coworker).

Similar to the objective strain measures, the measures for subjective strains were obtained in two ways: by follow-up questions after the vignettes and by questions in the section of the survey on employment discrimination. Perceived subjective strain used follow-up questions relating to the vignette. Three questions following each vignette asked the respondents if they thought the supervisor's actions were harmful, intentional, or unjust/unfair. The items were measured on a scale of 1 to 10 with 1 being low strain to 10 being high strain. The combined perceived subjective vignette items were factor analyzed, which produced a combined scale with one factor ( $KMO = .720$ ,  $\text{Chi Square} = 326.35$ ,  $df = 10$ ,  $p = .000$ ) and explained 46.33% of the variance (See Table 4 for factor loadings). The subjective strain questions for vignette one, which described sexual harassment, had a very low communality of .102. Cronbach's Alpha reliability for the

items was .675, improving to .734 when the vignette one subjective measure was deleted, and was therefore not used.

Subjective strain experienced by the respondent was measured with a scale with the combined scores from responses relating to experienced gender discrimination at work for those in the sample who have work experience.

Table 4. Factor loadings for perceived subjective strain variables

Variables	Factor loadings
Vignette 1 (sexual harassment)	
The supervisor's actions were intentional?	.709
The supervisor's actions were unjust/unfair?	.791
The supervisor's actions were harmful?	.735
(KMO = .628, Chi Sq. = 310.95, $df = 3$ , $p = .000$ , Var. = 67.6%)	
Vignette 2 (pay gap)	
The supervisor's actions were intentional?	.849
The supervisor's actions were unjust/unfair?	.862
The supervisor's actions were harmful?	.758
(KMO = .669, Chi Sq. = 283.01, $df = 3$ , $p = .000$ , Var. = 67.9%)	
Vignette 3 (glass ceiling)	
The supervisor's actions were intentional?	.861
The supervisor's actions were unjust/unfair?	.874
The supervisor's actions were harmful?	.738
(KMO = .655, Chi Sq. = 304.69, $df = 3$ , $p = .000$ , Var. = 68.4%)	
Vignette 4 (sticky floors)	
The supervisor's actions were intentional?	.864
The supervisor's actions were unjust/unfair?	.889
The supervisor's actions were harmful?	.812
(KMO = .695, Chi Sq. = 378.48, $df = 3$ , $p = .000$ , Var. = 73.2%)	
Vignette 5 (glass escalator)	
The supervisor's actions were intentional?	.842
The supervisor's actions were unjust/unfair?	.884
The supervisor's actions were harmful?	.805
(KMO = .685, Chi Sq. = 336.67, $df = 3$ , $p = .000$ , Var. = 71.3%)	
Combined vignette Subjective Scale (Alpha = .734)	
Vignette 2	.669
Vignette 3	.762
Vignette 4	.807
Vignette 5	.732



If respondents indicated having an experience of discrimination at work they were asked to rate whether they thought their experience was harmful, intentional, or unjust/unfair. Respondents were asked: “To what degree have you felt the following based on your experiences at work” – “Any [sexual harassment] [pay differences] [promotion I did not receive because of my sex] [Any promotion my coworker of the opposite sex received because of his or her sex] [Any job for which I did not get an equal chance because of my sex] I have experienced at work made me feel: [Frustrated] [Angry] [Depressed] [Anxious]. These questions were scored from 1 to 4 (1 = not at all; 2 = somewhat; 3 = definitely; 4 = very much). Factor analysis for the combined experienced subjective strain scale produced one factor explaining 95.38% of the variance (KMO = .771, Chi Square = 478.69,  $df = 3$ ,  $p = .000$ ) and a Cronbach’s Alpha of .974. Individual factor loadings for the different forms of discrimination are presented in Table 5.

Measures of the negative affective states of anger, depression, anxiety, and frustration are also key independent variables. A set of questions relating to anger, depression, anxiety, and frustration were asked of all respondents in the vignette section of the survey as well as of those who have work experience. While incidents of sexual harassment or other forms of stratification in the workplace may lead to state, or situational, anger, trait or dispositional anger may also influence criminal potential (Caspi et al. 1994; Wikstrom and Treiber 2007). Trait, or dispositional, anger as a psychological component, however, is beyond the prevue of this examination and will not be tested.

The anger, depression anxiety, and frustration variables were measured in the vignette section of the survey by asking whether the respondent would feel each of four

different negative affective states in that situation. They were scored on a 10 point range using the question “On a scale of 1 to 10 with 1 being low to 10 being high, indicate how this scenario would make you feel if it actually happened” and based on the statements “I would feel angry, [depressed], [anxious], [frustrated]”.

Table 5. Factor loadings for experienced subjective strain variables

Variables	Factor loadings
Any sexual harassment I have experienced at work made me feel:	
Harmed	.950
Intentional	.899
Unjust/unfair	.934
(KMO = .733, Chi Sq. = 264.12, $df = 3$ , $p = .000$ , Var. = 86.1%)	
Any pay differences I have received because of my sex made me feel:	
Harmed	.938
Intentional	.950
Unjust/unfair	.958
(KMO = .765, Chi Sq. = 322.81, $df = 3$ , $p = .000$ , Var. = 90.1%)	
Any promotion I did not receive because of my sex made me feel:	
Harmed	.969
Intentional	.983
Unjust/unfair	.968
(KMO = .761, Chi Sq. = 466.57, $df = 3$ , $p = .000$ , Var. = 94.7%)	
Any promotion my coworker of the opposite sex received because their sex was different than me and my same-sex coworkers made me feel:	
Harmed	.962
Intentional	.993
Unjust/unfair	.969
(KMO = .633, Chi Sq. = 533.91, $df = 3$ , $p = .000$ , Var. = 95.0%)	
Any job for which I did not get an equal chance at because of my sex made me feel:	
Harmed	.957
Intentional	.986
Unjust/unfair	.970
(KMO = .722, Chi Sq. = 464.03, $df = 3$ , $p = .000$ , Var. = 94.3%)	
Combined Experienced Subjective Scale (alpha = .974)	
Harmed	.950
Intentional	.968
Unjust/unfair	.944

The experienced strain variable comes from questions asked of respondents who have work experience and had experienced a particular form of discrimination. They were asked to indicate their level of anger, depression, anxiety, and frustration. Answers

were scored on a scale from 1 being “not at all” to 4 being “very much.” The items were scored separately since any one of them may lead to negative emotional states (Agnew 2001; Morgan 2006). The questions in the experienced discrimination set are gender-neutral in order to apply to both males and females (See Table 6 for statistics).

### *Control Variables*

In order to isolate the effects of strain and its relationship to crime in the workplace, as suggested by Agnew (1992), a proper test of GST requires measures of low social control and differential association as well as strain. In addition, self-control (constraint) and past offending history are used as controls.

Table 6. Descriptive statistics for dependent, independent, and control variables

Variable	Mean	S.D.	Min.	Max.	N
<b>Vignette 1 (sexual harassment)</b>					
Objective strain	.33	.472	0	1	352
Subjective Strain	.57	.496	0	1	352
Anger	.55	.498	0	1	352
Frustration	.50	.501	0	1	352
Depression	.47	.500	0	1	352
Anxiety	.20	.398	0	1	352
Theft Intention	.37	.484	0	1	352
<b>Vignette 2 (pay gap)</b>					
Objective strain	.44	.497	0	1	352
Subjective Strain	.50	.501	0	1	352
Anger	.67	.471	0	1	352
Frustration	.70	.459	0	1	352
Depression	.18	.389	0	1	352
Anxiety	.23	.442	0	1	352
Theft Intention	.45	.498	0	1	352
<b>Vignette 3 (glass ceiling)</b>					
Objective strain	.56	.497	0	1	352
Subjective Strain	.64	.482	0	1	352
Anger	.75	.435	0	1	352
Frustration	.76	.427	0	1	352
Depression	.23	.422	0	1	352
Anxiety	.26	.438	0	1	352

Table 6. Continued

Variable	Mean	S.D.	Min.	Max.	N
Theft Intention	.42	.494	0	1	352
Vignette 4 (sticky floors)					
Objective strain	.40	.491	0	1	352
Subjective Strain	.53	.500	0	1	352
Anger	.54	.499	0	1	352
Frustration	.59	.492	0	1	352
Depression	.16	.369	0	1	352
Anxiety	.20	.400	0	1	352
Theft Intention	.36	.481	0	1	352
Vignette 5 (glass escalator)					
Objective strain	.31	.462	0	1	352
Subjective Strain	.36	.481	0	1	352
Anger	.39	.488	0	1	352
Frustration	.46	.499	0	1	352
Depression	.13	.341	0	1	352
Anxiety	.16	.372	0	1	352
Theft Intention	.27	.443	0	1	352
Combined vignettes (discrimination)					
Objective strain	.41	.493	0	1	352
Subjective strain	.29	.456	0	1	352
Anger	.48	.500	0	1	352
Frustration	.49	.574	0	1	352
Depression	.47	.500	0	1	352
Anxiety	.14	.349	0	1	352
Theft intention	.49	.501	0	1	352
Experienced data					
Combined Objective strain	14.15	3.43	12	31	315
Combined Subjective strain	12.57	19.19	0	75	315
Combined Subjective strain (di)	.80	.401	0	1	315
Anger	4.33	6.90	0	25	315
Anger (di)	.17	.38	0	1	315
Frustration	4.41	6.93	0	25	315
Frustration (di)	.19	.39	0	1	315
Depression	3.57	5.60	0	25	315
Depression (di)	.12	.330	0	1	315
Anxiety	3.69	5.74	0	25	315
Anxiety (di)	.13	.337	0	1	315
Controls					
Delinquent peers	14.13	2.75	5	20	352
Pre-disposition	7.18	3.33	4	16	352
Family support	4.77	1.81	3	12	352
Friend support	5.04	1.65	3	12	352
Impulsivity	8.47	2.47	4	16	352
Commitment	9.00	4.52	0	16	352

*Low social control/differential association.*

A proper test of strain theory must control for low social control and differential association. According to Agnew, “The failure to do so may cause us to overestimate the effect of the strain measures, because strain is frequently correlated with low social control and the social learning of delinquency” (Agnew et al. 2002:51; Hagan, Simpson, and Gillis 1979). In terms of low social control, commitment to the workplace will act as the basis for this measure. Although social control in the workplace is a microcosm of social control in the general population, there are equivalencies. For example, parents, clergy, and teachers can be equated to supervisors/managers; police can be equated to security and supervisors; and social rules, boundaries, and limitations can be equated to policies and procedures. In this sense, low social control refers to harsh treatment by significant or important others in the workplace (supervisors, managers, or coworkers), which leads to reduced commitment or attachment to the workplace (Agnew 2001).

A particular type of commitment is measured to differentiate moral commitment from commitment by necessity, which is more often associated with low social control. Due to the nature of the question, only those who have work experience were asked the commitment questions. Questions measuring commitment were derived from the Organizational Commitment Questionnaire (OCQ) (Mowday, Steers, and Porter 1979). The fifteen question OCQ was developed to measure “three aspects of commitment: 1) a strong belief in and acceptance of the organization’s goals and values, 2) a willingness to exert considerable effort on behalf of the organization, and 3) a strong desire to maintain membership in the organization” (Mowday et al. 1979: 226). The OCQ has been shown to be reliable (Alpha’s in the .81 to .93 range with a mean of .91; See Azjen 2001) in

predicting levels of commitment in the workplace. The fifteen item instrument generally yields three constructs through confirmatory factor analysis which represent primarily attitudinal commitment, calculative commitment, and a third smaller factor referencing membership commitment not usually included in analysis due to low internal consistency (Lee and Gao 2005) and the loading of only one factor.

Differences in the type of commitment are subtle, but important. Attitudinal commitment to one's job may be a product of positive individual characteristics or positive work experiences. In other words, attitudinal commitment to the workplace may be based on one's moral or altruistic outlook. Calculative commitment may be the result of necessity for the purpose of sustaining life or lifestyle (Lee and Gao 2005). Calculative commitment has the potential to be more influential on decisions to steal from the workplace due to the influences of opportunity, peer pressure, or other external factors. Indeed, the pilot study revealed some significant results for calculative commitment, but not attitudinal commitment, therefore only those 4 items from the questionnaire relative to calculative commitment were used.

The 4 commitment items were scored on a four point Likert-type scale ranging from 1 "strongly agree" to 4 "strongly disagree." Factor analysis produced one factor explaining 46.9% of the variance ( $KMO = .674$ ,  $Chi\ Square = 135.64$ ,  $df = 6$ ,  $p = .000$ ) and a Cronbach's Alpha of .617 (See Table 7. for factor loadings). Since commitment data was not collected from those who did not work (39 cases), there was a disparity in population between commitment and the other controls with the vignette data. A dummy variable was therefore created to examine differences between the two populations (those who work/worked and those who have not) and used in the analysis of the vignette data.

Table 7. Factor loadings for commitment variables

Item description	Factor loadings
(Alpha = .617)	
I have no allegiance to my current company and I could just as well be working for a different organization doing the same thing	.784
Theft would be easy at my current or most recent job for someone who wanted to do it	.672
It would take very little change in my present circumstances to cause me to leave this company	.723
There is not too much to be gained by sticking with a company unless the pay is good	.590

In order to distinguish between low social control and differential association measures, Agnew (1992) suggested only those variables that clearly indicate negative relations with others be used when controlling for differential association. The argument is that negative relations are more potent than the mere effect they have on the level of social control (Agnew and Raskin-White 1992). In fact, they lead to negative affective states, which require the individual to use some form of coping mechanism, including deviant behavior. The differential association measures were derived from a series of six questions relating to contact with or knowledge of delinquent or criminal others. They were scored on a four point Likert-type scale ranging from 1 “strongly agree” to 4 “strongly disagree”. Factor analysis produced one factor (KMO = .767, Chi Square = 290.04,  $df = 15$ ,  $p = .000$ ) explaining 39.5% of the variance with a Cronbach’s Alpha of .643 (See Table 8). The alpha was improved to .678 by removing the one question for a total of 5 items in the delinquent peer association scale.

*Social support.*

As frequently noted by Agnew, deviance is only one possible response to strain.

Table 8. Factor loadings for delinquent peer association

Item description	Factor Loadings
(Alpha = .678)	
Some of my friends are dishonest.	.581
At least one friend has tried to show me how to steal	.602
The people I hang out with love to get into trouble	.704
Some of my friends were in a gang	.722
My friends didn't get good grades in school	.655

Agnew and Raskin-White (1992:477) noted “Individuals may cognitively reinterpret objective strains in ways that minimize their impact, they may engage in legal behaviors that minimize or eliminate strain, or they may manage the negative affect caused by strain in legal ways-such as exercise or meditation.” Agnew and Raskin-White (1992) also noted that for strain to lead to delinquency, non-delinquent coping constraints needed to be high. In other words, there needs to be a lack of alternative support mechanisms and those with adequate conventional support should better handle strain in a non-deviant manner. For this reason, the availability of social support must be a control.

For this study, a version of the social support appraisal scale developed by Vaux et al. (1986) was used. Morgan (2006) also used the social support appraisal scale and noted an alpha reliability of .93. The scale measures the degree to which the respondents are involved with family, friends, and others (See Table 9). There were 6 questions (3 negatively and 3 positively phrased) that best fit the support model described by Broidy (2001). These were measured on a 4 point Likert-type scale ranging from 1 “Strongly Agree” to 4 “Strongly Disagree.” The negatively phrased questions were reverse coded prior to analysis. Factor analysis produced 2 factors (See Table 9 for factor loadings) explaining 63.89% of the variance. (KMO = .781, Chi Square = 520.98,  $df = 15$ ,  $p =$



.000). The factors were split between support from family (Cronbach's Alpha = .619) and support from friends (Cronbach's Alpha = .774) with no improvement if any items were deleted.

Table 9. Factor loadings for social support

Item description	Factor loadings
Support friends (Alpha = .774)	
I am not important to others	.524
I can rely on my friends	.854
My friends look out for me	.846
Support Family (Alpha = .619)	
I can't rely on my family for support	.824
I feel a strong bond with my family	.786
My friends don't really care about my welfare	.703

### *Self-control.*

In recent years, self-control has been shown to be a consistent and accurate predictor of deviant behaviors, including theft. For example, Langton, Leeper-Piquero, and Hollinger (2006) found that fraudulent statements on resumes were correlated with both low self-control and intentions to commit white-collar crime among college students. Although negative emotionality would be the preferred control in strain studies (See Agnew et al. 2002), this requires external source verification to be valid. As noted by Agnew et al. (2002:48), however, "Low self-control includes many of the specific traits that comprise negative emotionality and low constraint", suggesting overlap between the two approaches. For this study then, a version of the well-tested Low Self-Control Scale (Grasmick et al. 1993) was used to assess the respondent's level of self-control. Only the impulsivity section of the scale was used due to the length of the

survey. As noted by Arneklev, Grasmick, and Bursik (1999:327), the impulsivity component is strongly correlated with the other five components, causing the authors to remark, “Is low self-control, to a large extent, simply impulsivity?” Self-control was measured by 4 questions using a 4 point Likert-type scale ranging from 1 = “strongly agree” to 4 = “strongly disagree.” Factor analysis produced one factor (KMO = .723, Chi Square = 419.82,  $df = 6$ ,  $p = .000$ ) explaining 60.38% of the variance (See Table 10) and a Cronbach’s Alpha of .775, which is consistent with Arneklev et al. (1999).

Table 10. Factor loadings for impulsivity

Item description	Factor loadings
(Alpha = .775)	
I often act on the spur of the moment without stopping to think.	.720
I often do whatever brings me pleasure here and now, even at the cost of some distant goal.	.841
I’m more concerned with what happens to me in the short run than in the long run.	.826
I don’t devote much thought and effort to preparing for the future.	.713

*Past criminal history.*

Mustaine and Tewksbury (2002) found that theft, in general, is significantly associated with workplace larceny. For example, college students who had stolen from strangers, broken into a vehicle in the past six months, or had been in prison were more likely to have taken an opportunity to steal from work (Mustaine and Tewksbury 2002). In addition, Sampson and Laub (1997:149) in their seminal work *Crime in the Making*, cited Gottfredson and Hirschi’s (1990) contention that “...a measure of criminality should be assessed ‘before crime is possible’ and constructed from information available in the preadolescent years.” For this study, therefore, a subset of the Normative Deviance

Scale (NDS) was used to assess past criminal history (See Vazsonyi et al. 2001). The survey contained only those items likely to have been perpetrated between the ages of 10-14. This accounted for the propensity to be deviant while avoiding any inter-correlation between past criminal history and workplace theft. Respondents were asked “How many times have you committed any of the following offenses between the ages of 10-14?”. It was scored using a 4-point Likert-type scale (1 = never, 2 = once or twice, 3 = 3 to 10 times, 4 = more than 10 times). Factor analysis produced two factors (KMO = .782, Chi Square = 725.93,  $df = 21$ ,  $p = .000$ ) explaining 62.7% of the variance (See Table 11). The two factors were split between status offenses and petty crimes. Only factor 1 (status offenses) with an alpha of .807 was used in further analysis. Factor 2 (petty crimes) had an alpha of only .463 and was eliminated from further analysis.

Table 11. Factor loadings for pre-disposition

Item description	Factor loadings
Status offenses (Alpha = .807)	
Played “hooky” or ditched class	.704
Smoked cigarettes or marijuana	.846
Drank alcohol	.875
Violated curfew	.655
Petty crimes (Alpha = .463)	
Stole money from parents	.713
Destroyed someone’s property	.803
Sprayed graffiti or “tagged”	.726

### *Demographic Variables*

Participants were asked to respond to a series of questions measuring key demographic factors. Demographic information included: sex, race, marital status, and age. The demographics of the sample closely represent those of the university in general

(Mid-Atlantic University statistics, 2011). In addition, current and former employment status was also measured. Frequencies and descriptive analyses were run on each variable and the results are presented in Table 12.

Table 12. Descriptive statistics of demographic variables

Variable	Sample %	Univ. %	Mean	S.D.	Min.	Max.
N = 352						
Sex						
0 = Female	58.5	55.0				
1 = Male	41.5	45.0				
Race						
1 = White	54.0	56.7				
0 = Other (Dummy variables)	46.0	43.3				
Employment Status						
0 = Yes	89.5	N/A				
1 = No	10.5					
Marital Status						
0 = Single	90.9	N/A				
1 = Married	9.1					
Age (University)			21.95 25.3	5.08	18	55

## ANALYTIC STRATEGY

There are two items to keep in mind that shape the analytic strategy. First, recall that there are two sets of data, one based on the vignettes that includes all respondents and another that is based on a smaller sample of respondents, only those who have worked. Second, a key goal of the analysis beyond testing the tenets of GST is to see if there are significant differences by gender in the effects. The analysis included models derived from the dependent, independent, and control variables. The analyses were conducted using the enter method to ensure the inclusion of all variables.

Logistic regression was chosen as the appropriate analytic technique for these data. This technique is appropriate because the key dependent variables are dichotomized and because of the skewed nature of the discrimination scales. In addition, the technique is more robust to non-linearity, typical of highly skewed data. Logistic regression allows for an examination of the logged odds of group membership. A breakdown of the techniques used in each hypothesis follows.

To test hypothesis one, logistic regression was used to examine the relationship between objective strains and intentions to steal/ theft measures. This tested the GST premise that objective strains may lead directly to crime. Hypothesis two was tested using logistic regression to explore the relationship between objective strains and subjective strains. GST predicts that objective strain is a significant predictor of subjective strain. Hypothesis three, predicting a positive and significant relationship between subjective strains and the negative affective states of anger and depression, was examined using logistic regression as well. For hypothesis four, the relationship between negative affective states and theft by employees was examined with logistic regression. Finally, impulsivity, pre-disposition, family and friend support, peer influence, commitment, and demographic controls were added at each step and in an overall model in order to determine whether these factors influence the effects of strain and negative affect on theft by employees.

Each hypothesis was tested across both types of data, vignette and experiential. In addition, to investigate differences between male and female respondents, analyses on the data were reproduced for males and females separately and z-scores produced. In the next chapter the discussion begins with an analysis of the vignette data.

## CHAPTER V

### RESULTS

The purpose of this chapter is to present the results of the data analysis. The chapter starts with an analysis of the data from the vignette section of the questionnaire. The vignette section of the survey asked respondents to tell how they believed they would react to a particular form of workplace discrimination. In order to test for effects across gender the analyses were completed for males and females separately with z-scores run for comparison of the two groups. The analyses of the vignettes were then followed by similar analyses using data of incidents actually experienced by employees.

In addition to analyses derived from these two ways of collecting data about strain and employee theft, combined and separate measures of the dependent and independent variables were examined. Agnew (2001) noted that past research on strain had a tendency to construct strain measures using combined scales (e.g. Mazerolle and Piquero 1997 summed the scores of all of the strain measures), but that this method had pitfalls due to the difficulty of teasing out those strains that affected the likelihood of crime from those that did not. Agnew (2001), in a departure from earlier writings (See Agnew 1992), went on to recommend separating strain measures in future research.

#### VIGNETTE RESULTS

##### *Bivariate Correlations for Combined Discrimination Measures*

The first sets of results come from the bivariate correlations of the combined discrimination measures derived from the corresponding vignette responses and

presented by gender (See Table 13). Also presented in the table are means by gender for each variable. An important result was the variables of anger and frustration were highly inter-correlated for both men and women, and depression and anxiety were likewise highly inter-correlated. Multicollinearity diagnostics (Condition Indexes = >30) also indicated that linearity across independent variables was indeed a problem and created an ill-conditioned model. The negative emotions of frustration and anxiety were therefore dropped from analyses. If left in, interpretation of the results would be compromised, notably “small changes in the data values may lead to large changes in the estimates of the coefficients” (SPSS Applications Guide 1999: 229). It is possible respondents move through a series of emotions ending in anger without distinction.

There are a number of other interesting findings. The bivariate correlations indicated there was no significant correlation between combined objective strains and combined positive employee intentions to steal for either males or females as predicted in hypothesis one. This was not necessarily a problem, however. As noted by Agnew (1992), while objective strains may lead to deviant behavior, it is more likely to result through negative emotion. There was also no significant correlation between objective strains and subjective strains for males or females. This result did not support hypothesis two or GST in general, but did support the need to distinguish between objective and subjective strains. In terms of hypothesis three, the association between subjective strains and negative emotion, there were no significant correlations between subjective strain and anger or depression for females (See Table 13). For males, there was a significant correlation between subjective strain and depression ( $r = .22, p = .001$ ), but not anger. In reference to hypothesis four, that negative emotion would be positively and significantly

correlated to intentions to steal, there were no significant correlations between negative affective states and theft for females. As would be predicted by current criminological theory, age ( $r = -.14, p = .045$ ), marital status ( $r = -.14, p = .040$ ), impulsivity ( $r = .24, p = .001$ ), peer association ( $r = -.23, p = .001$ ), and commitment ( $r = -.17, p = .017$ ) were significantly correlated with employee intentions to steal. For males, anger was not significantly correlated with intentions to steal, but depression was ( $r = .27, p = .001$ ). Agnew (2006) suggested the connection between depression as a predisposition for crime and the absence of anger has not been clearly established (from Rice 2006), however since this study focused on relatively minor non-violent crimes, the association between depression and theft by employees may be stronger than studies that employed violent crime measures (Jang and Johnson 2003). Similar to the findings for females, impulsivity ( $r = .33, p = .000$ ), peer association ( $r = -.32, p = .000$ ), predisposition ( $r = .33, p = .000$ ), and commitment ( $r = -.19; p = .025$ ), were significantly correlated with employee intentions to steal for males. Unlike for females, however, age and marital status were not significantly related to intentions to steal.

The bivariate analysis suggests that further analysis is in order to explore the relationship among the key dependent and independent variables. The next section examines the five hypotheses as they relate to perceived stressors and outcomes. The measures were derived from the vignette section of the survey and will be examined in detail using logistic regression.

The results are presented first for a combined measure of discrimination and combined measure of intentions to steal and then for separate types of discrimination. All analyses were run using the more conservative .05 confidence interval, though the .10



Table 13. Bivariate correlations of combined vignettes for males (bottom, n = 146) and females (top, n = 206)

	Theft Int.	Obj. Strain	Subj. Strain	Anger	Depr.	Age	White	Married	Imp.	Peer Assoc.	Pre-Dispo.	Fam. Supp.	Frnd. Supp.	Commit.	Com. Dum.
Females (top)															
Males (bottom)															
1. Theft Int.	1.00	.09	.74**	.08	.03	-.14*	.09	-.14*	.24**	-.23**	.10	.09	.07	-.17*	.03
2. Obj. Strain	.12	1.00	.04	.56**	.43**	.14*	.16*	.10	-.02	-.03	.03	-.01	-.00	.09	-.08
3. Subj. Strain	.73**	.06	1.00	.07	-.03	-.17*	.08	-.08	.23**	-.19**	.14*	.09	-.01	-.11	.02
4. Anger	.13	.68**	.08	1.00	.33**	.08	.10	-.00	.08	-.06	.06	-.02	-.03	-.04	.01
5. Depress.	.27**	.58**	.22**	.42**	1.00	.12	.20**	.06	.07	-.04	.10	-.08	-.03	.02	.06
6. Age	-.07	.00	-.09	.12	.00	1.00	.15*	.53**	-.05	.23**	-.04	.06	.03	.04	-.07
7. White	-.11	.01	-.05	-.01	-.08	-.01	1.00	.06	.11	-.01	.14*	.03	-.04	.14*	-.16*
8. Married	.01	.12	-.08	.04	.01	.56**	-.03	1.00	-.10	.23**	-.04	.04	-.12+	-.00	.02
9. Imp.	.33**	.01	.33**	-.05	.16+	-.01	.11	-.01	1.00	-.31**	.16*	.04	.11	-.08	.08
10. Peer Assoc.	-.32**	-.12	-.20*	-.14+	-.23**	.13	-.01	-.02	-.46**	1.00	-.28**	-.14*	-.23**	.12+	-.01
11. Pre-Dispo.	.34**	.08	.25**	.04	.12	-.04	-.11	.13	.21*	-.27**	1.00	.00	.06	-.10	.07
12. Fam. Supp.	.11	-.07	.10	-.04	.08	.02	.15	-.04	.22**	-.18*	-.04	1.00	.47**	-.04	-.00
13. Frnd. Supp.	.15+	-.05	.09	-.07	.10	.09	-.05	.06	.11	-.29**	-.07	.47**	1.00	-.09	.11
14. Commit.	-.19*	.11	-.19*	.18*	.03	.04	.13	-.05	-.05	.10	-.01	-.07	-.17*	1.00	-.85**
15. Com. Dum.	.09	-.16+	.18*	-.20*	-.06	-.10	-.16+	-.01	-.01	.05	-.08	-.00	.10	-.83**	1.00
Females															
Mean	7.35	42.85	.42	45.69	27.69	22.02	.48	1.12	8.30	14.39	10.35	4.75	4.89	9.46	.14
St. Dev.	3.71	7.95	.50	5.44	13.99	5.66	.50	.33	2.41	2.70	3.66	1.95	1.68	4.51	.34
Males															
Mean	9.07	37.37	.60	39.45	22.42	21.84	.63	1.05	8.71	13.77	11.91	4.80	5.26	8.35	.16
St. Dev.	4.62	9.17	.49	8.03	13.04	4.12	.48	.21	2.54	2.75	4.35	1.60	1.59	4.46	.37

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

level is being reported to augment significant results. The results of this section represent a partial replication of previous studies (e.g. Broidy and Agnew 1997; Eitle 2002), with the added focus on separate discrimination factors, individual sex cohorts, and theft by employees. Most studies utilizing discrimination measures incorporate a scaled measure and present sex merely as a control variable, which does not allow for a thorough examination of the differences by gender. Because few studies utilize male and female data separately and separate discrimination measures, this was done here in order to fill gaps in current literature.

#### *Combined Discrimination Measures*

##### *Females.*

Hypothesis one was not supported ( See Column 1, Table 14). The results indicated the objective strain of discrimination was negatively related to theft by employees for females and was not significant. Both the negative direction and the lack of significance were contrary to what was predicted. It was hypothesized that objective strain would be positively and significantly associated with theft by employees. While this was not the case, the finding was not completely surprising given that Agnew (2001) suggested strains are more likely to lead to deviant outcomes when viewed subjectively as harmful and produces a negative affective state. Age ( $p = .047$ ), impulsivity ( $p = .011$ ), and commitment ( $p = .029$ ), in contrast, were significantly associated with intentions to steal and in the expected direction. Younger, more impulsive, and less committed respondents indicated higher odds of positive intentions to steal. The model explained 19% of the variation in intentions to steal (Chi Square = 30.68,  $df = 11$ ,  $p = .001$ ).

Hypothesis two was supported (See Column 2, Table 14). The data indicated objective strains of the combined discrimination measures were significantly and positively related to subjective strains for females. The model for the predictor variable was significant and explained 5% of the variance (Chi Square = 7.36,  $df= 1$ ,  $p = .007$ ). Age ( $p = .009$ ), race ( $p = .078$ ), and marital status ( $p = .098$ ) were significant predictors of subjective strain for females. Older, white, single females indicated greater odds of subjective strain.

In terms of hypothesis three, the findings (See Column 3, Table 14) indicated that it was supported. The subjective strain of discrimination was positively and significantly associated with anger. A unit difference in subjective strain was associated with odds of almost 11 times greater in anger ( $p = .000$ ). The model explained 24% of the variation (Chi Square = 37.94,  $df= 1$ ,  $p = .000$ ) in anger. In terms of the control variables, the odds ratio increased to 11.70 times greater ( $p = .000$ ). In addition, pre-disposition was a significant predictor ( $p = .047$ ). A unit difference in predisposition was associated with 11% greater odds in anger.

In terms of hypothesis three and depression for females, the subjective strain as measured by combined discrimination was non-significant. Thus, hypothesis three was unsupported. The combined depression variable suffered from low cell counts and therefore produced large standard errors using the traditional cutoff. Since most of the other variables fell into the 52 percentile range with the dichotomized cutoff, this percentile was used with the combined depression variable. Abnormal standard errors were eliminated. Although this is not completely consistent with past research, the young college sample may indicate less "serious" depression than in the general population.

Table 14. Logistic model of all combined vignettes for females (n = 206)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	.83	1.07 **				.72
	b(s.e.)	-.19 (.32)	.07 (.03)				-.33 (.37)
Subjective Strain	Exp(B)			11.70 **	40.05 **		.67
	b(s.e.)			2.46 (.45)	3.69 (.85)		-.41 (.37)
Anger	Exp(B)					.78	1.06
	b(s.e.)					-.13 (.33)	.06 (.04)
Depression	Exp(B)					.81	.99
	b(s.e.)					-.21 (.35)	-.01 (.01)
Age	Exp(B)	.91 *	1.11 **	1.00	.99	.91 *	.92 +
	b(s.e.)	-.10 (.05)	.11 (.04)	.00 (.05)	-.00 (.05)	-.09 (.05)	-.09 (.05)
White	Exp(B)	1.31	.56 +	1.70	.99	1.28	1.23
	b(s.e.)	.27 (.32)	-.58 (.33)	.53 9.36)	-.01 (.61)	.25 (.32)	.20 (.33)
Married	Exp(B)	1.45	.36 +	1.46	9.86 *	1.39	1.41
	b(s.e.)	.37 (.59)	-1.02 (.61)	.38 (.65)	2.29 (.890)	.33 (.60)	.34 (.61)
Impulsivity	Exp(B)	1.20 *	.90	1.03	1.02	1.20 *	1.18 *
	b(s.e.)	.18 (.07)	-.10 (.07)	.03 (.08)	.02 (.12)	.18 (.07)	.17 (.07)
Peer Association	Exp(B)	.96	1.05	.99	.85	.96	.97
	b(s.e.)	-.04 (.07)	.05 (.07)	-.01 (.07)	-.16 (.12)	-.04 (.07)	-.04 (.07)
Pre-disposition	Exp(B)	1.05	.94	1.11 *	1.27 **	1.05	1.05
	b(s.e.)	.05 (.04)	-.06 (.05)	.99 (.05)	.24 (.08)	.05 (.05)	.05 (.05)
Family Support	Exp(B)	1.16	1.05	1.04	.86	1.16	1.17
	b(s.e.)	.15 (.09)	.05 (.09)	.04 (.10)	-.15 (.17)	.15 (.09)	.15 (.09)
Friend Support	Exp(B)	.87	.95	.91	.82	.87	.86
	b(s.e.)	-.14 (.11)	-.06 (.11)	-.09 (.12)	-.20 (.18)	-.14 (.110)	-.15 (.12)
Commitment	Exp(B)	.86 *	1.00	.93	1.39 *	.86 *	.87 *
	b(s.e.)	-.15 (.07)	.00 (.07)	-.07 (.07)	.33 (.13)	-.15 (.07)	-.14 (.07)
Commit. Dummy	Exp(B)	.21 +	3.03	.46	22.36 +	.21 +	.26
	b(s.e.)	-1.59 (.89)	1.11 (.91)	-.78 9.990	3.11 (1.71)	-1.49 (.89)	-1.39 (.91)
Chi-Square(df)		30.62 (11)	32.38 (11)	48.83 (11)	48.8 (11)	30.99 (12)	33.46 (14)
-2 Log		246.05	238.06	213.98	90.5	245.68	243.21
Nagelkerke R <sup>2</sup>		.19	.20	.29	.43	.19	.20
Significance		.00	.00	.00	.00	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

The findings (See Column 4, Table 14) show that a unit difference in subjective strain was associated with odds 13 times greater in depression. This model explained 23% of the variation in depression (Chi Square = 24.39,  $df = 1$ ,  $p = .000$ ). With the inclusion of control variables, the subjective strain of discrimination was still positively and significantly ( $p = .000$ ) associated with depression for females. A unit difference in subjective strain was associated with odds 40 times greater in depression. Marital status ( $p = .010$ ), pre disposition ( $p = .004$ ), and commitment ( $p = .010$ ) were also significantly associated with depression. Married persons were associated with odds 9 times greater in depression. This result was in the expected direction. A unit difference in pre-disposition was associated with odds 27% greater in depression. This was in the expected direction. Also, a unit difference in commitment was associated with odds 39% greater in depression. This was somewhat unexpected, as those with higher commitment to work should be less depressed.

Hypothesis four predicted that negative affective states would be positively and significantly associated with intentions to steal. Hypothesis four (See Column 5, Table 14) was only partially supported. Depression and anger, however, were not significant predictors of intentions to steal for females. Age ( $p = .071$ ), impulsivity ( $p = .019$ ), and commitment ( $p = .047$ ) were significant.

A unit difference in age was associated with odds 9% less in intentions to steal. Thus, as age increased, intentions to steal decreased, which was in the expected direction. A unit difference in impulsivity was associated with odds 18% greater in intentions to steal for females. Therefore, as impulsivity increased, intentions to steal increased, which was in the expected direction. Also, a unit difference in commitment was associated with

odds 13% less in intentions to steal. Thus, as commitment increased, intentions to steal decreased, which was also in the expected direction. It should also be noted that objective strain became non-significant with the inclusion of emotion. This was also expected.

Finally, findings for the full model (See Column 6, Table 14) indicate that, as maintained by this study, the combined measure of discrimination yielded expectedly weak results for females, thus, the purpose of examining types of discrimination individually, however, many of the results yielded significant associations. At its core, GST maintains strains, and by extension the strain of discrimination, may lead to deviant behavior. This notion was supported for females and adds validity to using GST for this type of examination.

#### *Males.*

For males, hypothesis one was not supported (See Column 1, Table 15). Objective strain was negatively and non-significantly associated with intentions to steal. In terms of controls, impulsivity ( $p = .002$ ) and pre-disposition ( $p = .006$ ) were positively and significantly associated with intentions to steal. A unit difference in impulsivity and pre-disposition was associated with odds 34% and 16% greater in intentions to steal, respectively. The model with controls explained 29% of the variation in intentions to steal for males (Chi Square = 34.32,  $df = 11$ ,  $p = .000$ ).

The results (See Column 2, Table 15) supported hypothesis two. They indicated that objective strain as measured by combined discrimination was positively and significantly associated with the subjective evaluation of that strain. A unit difference in objective strain was associated with 16% ( $p = .001$ ) greater odds in subjective strain. The

model for the predictor variable explained 20% of the variation in subjective strain (Chi Square = 17.76,  $df = 1$ ,  $p = .000$ ).

With the inclusion of control variables, objective strain remained positive and significant with a reduction in the standard error. None of the control variables were significant.

The results for hypothesis three (See Column 3, Table 15) indicated subjective strain of discrimination (combined measure) was positively and significantly associated with anger for males, and provided support for hypothesis three. A unit difference in subjective strain was associated with odds over 13 times greater in anger ( $p = .000$ ). The model for the predictor variable explained 27% of the variation in anger (Chi Square = 28.32,  $df = 1$ ,  $p = .000$ ).

With the inclusion of control variables, the odds ratio increased to over 24 times ( $p = .000$ ). Peer association ( $p = .008$ ), pre-disposition ( $p = .028$ ), and friend support ( $p = .030$ ) were significant predictors of anger. A unit difference in positive peer associations was associated with odds 18% less in anger. Thus, the greater the positive peer associations, the less the respondent was angry. Also, a unit difference in pre-disposition was associated with odds 15% less in anger. Thus, as pre-disposition increased, anger decreased. This result was not in the expected direction. In addition, a unit difference in friend support (a lack of peer support) was associated with odds 38% ( $p = <.05$ ) less in anger. Therefore, as the amount of support decreased, anger decreased. This result was not in the predicted direction, but may be understood if the support provided by others had a negative influence. In other words, as negative influences decrease so does the level of anger.

Table 15. Logistic model of all combined vignettes for males (n = 146)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	.88	1.16 **				.26 *
	b(s.e.)	-.13 (.47)	.15 (.05)				-1.30 (.65)
Subjective Strain	Exp(B)			24.47 **	3.90 **		2.44
	b(s.e.)			3.20 (.67)	1.36 (.52)		.89 (.70)
Anger	Exp(B)					.54	1.05
	b(s.e.)					-.62 (.58)	.05 (.03)
Depression	Exp(B)					2.66	1.03 +
	b(s.e.)					1.00 (.68)	.03 (.02)
Age	Exp(B)	1.00	1.11	1.02	.97	.98	.97
	b(s.e.)	-.00 (.06)	.10 (.09)	.02 (.07)	-.03 (.06)	-.02 (.06)	-.03 (.06)
White	Exp(B)	.77	1.06	1.28	.59	.78	.84
	b(s.e.)	-.26 (.42)	.06 (.57)	.25 (.55)	-.54 (.40)	-.25 (.42)	-.17 (.43)
Married	Exp(B)	.17	.14	8.32	1.12	.21	.23
	b(s.e.)	-1.80 (1.30)	-1.98 (1.80)	2.12 (1.54)	.11 (1.29)	-1.59 (1.39)	-1.49 (1.39)
Impulsivity	Exp(B)	1.34 **	.95	.97	1.10	1.36 **	1.36 **
	b(s.e.)	.29 (.10)	-.05 (.13)	-.03 (.12)	.09 (.09)	.31 (.10)	.31 (.10)
Peer Association	Exp(B)	.99	1.19	.73 **	.87	.96	.99
	b(s.e.)	-.01 (.09)	.18 (.14)	-.32 (.12)	-.14 (.09)	-.04 (.09)	-.00 (.10)
Pre-disposition	Exp(B)	1.16 **	1.02	.86 **	.99	1.16 **	1.17 **
	b(s.e.)	.15 (.06)	.02 (.06)	-.16 (.07)	-.01 (.05)	.15 (.06)	.16 (.06)
Family Support	Exp(B)	.97	.83	.93	1.08	.98	.95
	b(s.e.)	-.03 (.15)	-.19 (.20)	-.08 (.20)	.08 (.13)	-.02 (.15)	-.06 (.16)
Friend Support	Exp(B)	1.14	1.06	.63 **	1.00	1.11	1.10
	b(s.e.)	.13 (.16)	.06 (.20)	-.47 (.22)	-.00 (.14)	.11 (.16)	.10 (.17)
Commitment	Exp(B)	.97	.87	.91	1.05	.98	.96
	b(s.e.)	-.03 (.08)	-.14 (.11)	-.09 (.11)	.05 (.08)	-.02 (.08)	-.04 (.08)
Commit. Dummy	Exp(B)	2.61	.08	.18	1.11	3.15	3.52
	b(s.e.)	.96 (1.00)	-2.58 (1.57)	-1.75 (1.37)	.10 (.94)	1.10 (1.10)	1.29 (1.10)
Chi-Square(df)		34.33 (11)	26.90 (11)	49.82 (11)	15.94 (11)	36.45 (12)	43.59 (14)
-2 Log		158.78	99.24	104.67	175.53	156.66	149.53
Nagelkerke R <sup>2</sup>		.29	.29	.45	.14	.30	.36
Significance		.00	.01	.00	.14	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.



In terms of depression for males (See Column 4, Table 15) supported hypothesis three, as the subjective strain of discrimination was significantly ( $p = .009$ ) associated with depression. A unit difference in subjective strain was associated with odds almost 4 times greater in depression for males. Thus, as subjective strain increased, depression increased. The model for the predictor variable explained 5% of the variation in depression (Chi Square = 5.69,  $df = 1$ ,  $p = .017$ ).

With control variables included in model 4 (Table 15), subjective strain was significantly associated with depression for males ( $p = .009$ ). This was not unexpected, but with a caveat. The combined depression variable suffered from low cell counts and therefore produced large standard errors using the traditional cutoff. As with the data for females, most of the other variables for males fell into the 52 percentile range with the dichotomized cutoff, this percentile was used with the combined depression variable. Abnormal standard errors were eliminated. Although this is not completely consistent with past research, the young college sample may indicate less "serious" depression than in the general population. None of the control variables are significant.

In terms of hypothesis four for males, support was mixed (See Column 5, Table 15). Anger was not a significant predictor of intentions to steal, but depression was ( $p = .074$ ). Impulsivity ( $p = .002$ ) and pre-disposition ( $p = .006$ ) were also significant predictors of intentions to steal. A unit difference in impulsivity was associated with odds 36% greater in intentions to steal. Thus, as impulsivity increased, intentions to steal increased, which was in the expected direction. A unit difference in pre-disposition was associated with odds 17% greater in intentions to steal. Thus, as pre-disposition

increased, intentions to steal increased, which was in the expected direction. Moreover, objective strain became significant ( $p = .039$ ), suggesting a possible suppression effect.

Finally, findings for the full model (See column, 6, Table 15) partially supported hypothesis five. Objective strain was significantly associated with intentions to steal for males, while controlling for other factors. Contrary to predictions however, subjective strain was not significant. Interestingly, depression was a significant predictor of intentions to steal. As predicted by crime theories in general, impulsivity and pre-disposition were also significant predictors of intentions to steal for males.

Overall, while weakly supportive of hypothesis five, these results do support GST's claim that strains are more likely to result in illegitimate coping behaviors when viewed subjectively and mediated by a negative affective state (Agnew 2001).

#### *Comparisons Between Females and Males*

Before continuing with the analysis of single discrimination measures, the analysis examines whether there are significant differences by gender in the relationship among the variables. Group comparisons between females and males were run using z-scores derived from the betas and standard errors of the logistic regression output. Examination of the findings (See Table 16) indicate that there were few differences by gender. As predicted, there were no significant group differences between males and females in terms of intentions to steal. This is important in terms of a contribution to existing literature. The only significant differences were in terms of hypothesis three (See Column 3, Table 16). Pre-disposition and negative peer associations have a significantly greater effect on anger for males than for females.

Table 16. Z-scores of combined vignettes comparing males and females

	Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	-.11	-1.37				1.30
Subjective Strain			-.92	-1.82		-1.64 +
Anger					.73	.20
Depression					-1.58	-1.79
Age	-1.28	.10	-.23	-1.15	-.90	-.77
White	1.17	-.97	.43	.77	.95	.68
Married	1.52	.51	-1.04	-.01	1.27	1.20
Impulsivity	-.90	-.34	.42	.34	-1.07	-1.15
Peer Association	-.26	-.83	2.23 *	-.56	.00	-.33
Pre-disposition	-1.39	-1.02	3.02 **	.12	-1.28	-1.41
Family Support	-1.13	1.07	.15	1.33	-1.22	-.94
Friend Support	-1.39	-.53	1.52	-.11	-1.29	-1.20
Commitment	-1.13	1.07	.15	1.33	-1.22	-.94
Commit. Dummy	-1.91	.20	.57	.00	-1.84	-1.89 +

\*\*=p<.01; \*=p<.05; +=p<.10.

## SEPARATE STRAIN DISCRIMINATION MEASURES

The analysis now turns to examination of the effects of each of the separate measures of discrimination. A logistic regression analysis was run with objective strain and major control variables predicting intentions to steal by hypothesis for each type of discrimination described in the individual vignettes. This method was used to examine GST's contention that objective strain may be positively and directly related to the coping mechanism of theft (Agnew 2001). Separation of analysis by discrimination type also allows examination of presence of negative stimuli (sexual harassment), absence of positive stimuli (pay gap), and blocked goals (glass ceiling, sticky floors, glass escalator). The separation of the strains into distinct types also allows for a unique comparison not obtained with combined measures. The analysis begins with females.

Although Agnew (1992) posited objective strain could be directly related to crime coping behaviors, the greater potential was for these strains to be evaluated subjectively and mediated through a negative emotional state. Although anger is predicted to have the strongest influence, consistent with other literature, depression is also being examined to see if differences exist between negative affective states and different types of gender discrimination. As was indicated in the bivariate correlations, anxiety and frustration, while interpreted as separate emotions, proved to be highly correlated with anger and depression and created issues of multicollinearity. These two emotions were therefore dropped from further analysis while focus was maintained on the more often tested emotions of anger and depression.

*Females*

*The sexual harassment scenario.*

Hypothesis one was not supported for females (See Column 1, Table 17). Objective strains as measured by the sexual harassment vignette were negatively and significantly ( $p = .026$ ) associated with intentions to steal. A unit difference in objective strain was associated with odds of 55% less in intentions to steal. This was contrary to hypothesis one, but could still be consistent with GST's contention because women may seek other directed coping mechanisms when faced with strain. In terms of the control variables for females, age ( $p = .028$ ), race ( $p = .064$ ), and commitment ( $p = .10$ ) were significantly associated with intentions to steal. A unit difference in age (increase in age) was associated with odds of 15% less in intentions to steal, which was in the expected direction. A unit difference in race was associated with odds of 89% greater in intentions to steal. White females indicated greater intentions to steal in the face of sexual harassment discrimination. A unit difference in commitment was associated with odds of 12% less in intentions to steal, which was in the expected direction.

For females, objective strain as measured by sexual harassment was significantly ( $p = .000$ ) and positively associated with the subjective evaluation of that strain. This supports hypothesis 2 (See Column 2, Table 17). A unit difference in objective strain was associated with odds just over 3 ½ times greater in subjectivir strain.

Also, age was a significant ( $p = .082$ ) predictor of subjective strain. A unit difference (increase in age) in objective strain was associated with odds 12% greater in subjective strain. This result was in the expected direction.

Table 17. Logistic model of sexual harassment vignette for females (n = 206)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	.45 *	3.78 *				.37 *
	b(s.e.)	-.80 (.36)	1.33 (.37)				-.10 (.42)
Subjective Strain	Exp(B)			4.60 **	.30 *		1.06
	b(s.e.)			1.53 (.37)	1.11 (.53)		.05 (.38)
Anger	Exp(B)					.68	.85
	b(s.e.)					-.38 (.40)	-.16 (.43)
Depression	Exp(B)					1.33	2.03
	b(s.e.)					.29 (.46)	.71 (.50)
Age	Exp(B)	.85 *	1.12 +	.98	1.05	.85 *	.85 *
	b(s.e.)	-.16 (.07)	.11 (.06)	-.03 (.04)	.05 (.03)	-.17 (.07)	-.17 (.07)
White	Exp(B)	1.90 +	1.36	1.06	1.46	1.78 +	1.82 +
	b(s.e.)	.64 (.35)	.31 (.34)	.05 (.37)	.38 (.40)	.57 (.34)	.60 (.35)
Married	Exp(B)	.92	.82	1.10	1.26	.78	.97
	b(s.e.)	-.08 (.77)	-.19 (.70)	.09 (.64)	.23 (.63)	-.25 (.76)	-.03 (.77)
Impulsivity	Exp(B)	.99	1.04	.96	1.01	1.03	.98
	b(s.e.)	-.01 (.08)	.04 (.08)	-.05 (.08)	.01 (.08)	.03 (.07)	-.02 (.08)
Peer Association	Exp(B)	.90	1.12	.91	.89	.92	.90
	b(s.e.)	-.10 (.07)	.11 (.07)	-.09 (.08)	-.11 (.08)	-.08 (.07)	-.10 (.07)
Pre-disposition	Exp(B)	1.01	1.04	1.03	1.07	1.01	1.01
	b(s.e.)	.01 (.05)	.04 (.05)	.03 (.05)	.07 (.05)	.01 (.05)	.01 (.05)
Family Support	Exp(B)	1.09	1.03	1.00	.92	1.09	1.10
	b(s.e.)	.09 (.10)	.03 (.10)	.00 (.11)	.08 (.12)	.09 (.10)	.09 (.10)
Friend Support	Exp(B)	.92	.99	.96	.83	.95	.93
	b(s.e.)	-.09 (.12)	-.01 (.12)	-.07 (.13)	-.19 (.14)	-.05 (.12)	-.07 (.12)
Commitment	Exp(B)	.89	.90	.96	1.08	.86 *	.88 +
	b(s.e.)	-.12 (.07)	-.10 (.07)	-.04 (.08)	.08 (.08)	-.16 (.07)	-.13 (.07)
Commit. Dummy	Exp(B)	.20 +	3.63	.52	3.67	.13 *	.17 +
	b(s.e.)	-1.59 (.94)	-1.03 (.95)	-.65 (1.07)	1.29 (1.99)	-2.01 (.94)	-1.79 (.96)
Chi-Square(df)		30.95 (11)	27.86 (11)	21.87 (11)	18.66 (11)	26.88 (12)	33.00 (14)
-2 Log		220.51	221.98	202.50	174.11	224.59	218.47
Nagelkerke R <sup>2</sup>			.18	.15	.14	.18	.21
Significance		.00	.00	.03	.07	.01	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

For females, the subjective strain of sexual harassment was a significant ( $p = .000$ ) and positive predictor of anger and supports hypothesis three (See Column 3, Table 17). A unit difference in subjective strain was associated with odds of 4 ½ times greater in anger. This was expected. No control variables were significant. Likewise, the subjective strain of sexual harassment was significantly ( $p = .035$ ) and positively associated with the negative affective state of depression (column 4, Table 17). A unit difference in subjective strain was associated with odds of over 3 times greater in depression for females. No control variables were significant.

Neither anger nor depression was a significant predictor of intentions to steal for females as measured by sexual harassment, which did not support hypothesis four (See Column 5, Table 17). The results also indicated that older females were significantly ( $p = .025$ ) associated with intentions to steal when anger and depression were presented as independent variables. A unit difference in age was associated with odds of 15% greater in intentions to steal. Commitment to the work place was also significantly associated ( $p = .032$ ) with intentions to steal. A unit difference in commitment was associated with odds of 15% less in intentions to steal. This is consistent with social control theory.

In terms of the overall model for the sexual harassment vignette (See Column 6, Table 17), neither anger and depression were significant predictors of intentions to steal for women. Objective strain was significant but as objective strain increased, intentions to steal decreased significantly by 63% ( $p = .017$ ). This was not in the predicted direction and was not supportive of GST. It continues to suggest, however, that women seek paths other than theft when coping with the strain of sexual harassment.

*The pay gap scenario.*

The objective strain of the pay gap was a not a significant predictor of intentions to steal for females and did not support hypothesis one (See Column 1, Table 18). In terms of controls, age ( $p = .042$ ), impulsivity ( $p = .020$ ), and commitment ( $p = .028$ ) were significantly associated with intentions to steal. A unit difference in age (increase in age) was associated with odds of 10% less in intentions to steal, a unit difference in impulsivity was associated with odds of 18% greater in intentions to steal; and a unit difference in commitment was associated with odds of 14% less in intentions to steal. All of these results were in the expected direction.

The objective strain of the pay gap was significantly ( $p = .001$ ) and positively associated with the subjective evaluation of that strain and was supportive of hypothesis two (See Column 2, Table 18). A unit difference in objective strain was associated with odds over 2 1/2 times greater in subjective strain. No control variables were significant for this part of the analysis.

The next part of the analysis used subjective strain as the independent variable and the negative affective states of anger and depression as the dependent variables. The subjective strain of the pay gap was a significant ( $p = .000$ ) and positive predictor of anger for females and supports hypothesis three (See Column 3, Table 18). A unit difference in subjective strain was associated with odds 5.7 times greater in anger. Race ( $p = .082$ ) and pre-disposition ( $p = .078$ ) were also significant predictors of anger for females. A unit difference in race (White) was associated with odds of 48% less in anger and a unit difference in pre-disposition was associated with odds of 11% greater in anger. Both of these results were in the expected direction.



Table 18. Logistic model of pay gap vignette for females (n = 206)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	.97	2.79 **				.95
	b(s.e.)	-.03 (.32)	1.03 (.31)				-.05 (.36)
Subjective Strain	Exp(B)			5.70 **	2.09 *		1.05
	b(s.e.)			1.74 (.38)	.74 (.38)		.04 (.35)
Anger	Exp(B)					1.95 +	1.95
	b(s.e.)					.67 (.40)	.67 (.43)
Depression	Exp(B)					.49 +	.49 +
	b(s.e.)					-.72 (.41)	-.71 (.43)
Age	Exp(B)	.90 *	11.04	1.01	1.02	.91 +	.91 *
	b(s.e.)	-.10 (.05)	.04 (.04)	.01 (.04)	.02 (.04)	-.10 (.05)	-.05 (.36)
White	Exp(B)	1.35	.69	.52 +	.86	1.44	1.45
	b(s.e.)	.30 (.32)	-.38 (.31)	-.66 (.38)	-.15 (.37)	.37 (.33)	.37 (.33)
Married	Exp(B)	1.93	.48	1.39	2.01	1.96	1.99
	b(s.e.)	.66 (.60)	-.74 (.56)	.33 (.65)	.70 (.60)	.67 (.61)	.69 (.61)
Impulsivity	Exp(B)	1.18 *	.94	1.02	.98	1.19 *	1.18 *
	b(s.e.)	.17 (.07)	-.06 (.07)	.02 (.08)	-.02 (.08)	.17 (.07)	.17 (.07)
Peer Association	Exp(B)	.96	.98	.89	.91	.96	1.07
	b(s.e.)	-.04 (.07)	-.03 (.07)	-.12 (.09)	-.10 (.08)	-.04 (.07)	.07 (.05)
Pre-disposition	Exp(B)	1.06	.95	1.11 +	1.16 **	1.07	1.07
	b(s.e.)	.06 (.04)	-.05 (.04)	.10 (.06)	.15 (.05)	.07 (.05)	.07 (.05)
Family Support	Exp(B)	1.12	.91	1.00	1.06	1.13	1.13
	b(s.e.)	.11 (.09)	-.10 (.09)	.00 (.11)	.06 (.10)	.12 (.09)	.12 (.09)
Friend Support	Exp(B)	.93	1.06	.89	.93	.93	.93
	b(s.e.)	-.08 (.11)	.06 (.11)	-.12 (.13)	-.07 (.12)	-.08 (.11)	-.08 (.11)
Commitment	Exp(B)	.86 *	.98	1.05	1.11	.86	.86 *
	b(s.e.)	-.15 (.07)	-.02 (.07)	.05 (.08)	.10 (.07)	-.15 (.07)	-.15 (.07)
Commit. Dummy	Exp(B)	.20 +	1.37	1.25	1.82	1.94	1.93 +
	b(s.e.)	-1.61 (.89)	.31 (.86)	.23 (1.07)	.60 (1.00)	-1.64 (.90)	-1.59 (.90)
Chi-Square(df)		27.84 (11)	19.46 (11)	32.25 (11)	20.11 (11)	32.50 (12)	32.53 (14)
-2 Log		241.63	257.19	192.14	199.59	236.97	236.94
Nagelkerke R <sup>2</sup>		.17	.12	.22	.14	.20	.20
Significance		.00	.05	.00	.04	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

Likewise, the subjective strain of the pay gap significantly ( $p = .051$ ) predicted depression for females, also supportive of hypothesis three (See Column 4, Table 18). A unit difference in subjective strain was associated with odds of just over 2 times greater in depression. Pre-disposition was also significantly ( $p = .002$ ) associated with depression. A unit difference in pre-disposition was associated with odds of 16% greater in depression.

The results in terms of hypothesis four indicated that both anger and depression were weakly significant predictors of intentions to steal for females ( $p = .098$ ,  $p = .081$ , respectively) (See Column 5, Table 18). A unit difference in anger was associated with odds of almost two times greater in intentions to steal. Conversely, a unit difference in depression was associated with odds of 52% less in intentions to steal. This was not supportive of hypothesis four or GST, but anger in general is seen to be the more important negative affective state. Also, a unit difference in impulsivity ( $p = .018$ ) was associated with odds of 19% greater in intentions to steal.

For the overall model in the pay gap (See Column 6, Table 18) scenario, neither objective nor subjective strains were significant predictors of intentions to steal. In addition, anger was not a significant predictor of intentions to steal for women, but depression was significant ( $p = .096$ ). A unit difference in depression was associated with odds of 51% less in intentions to steal. Age, impulsivity, and commitment were significant predictors of intentions to steal for females. In general, the findings for strain as measured by the pay gap were not supportive of GST, however, there are a number of possible reasons for this. The relative youth of the sample, the short work histories of the respondents, inexperience with pay differences at work, and a changing work

environment which tends to be fairer than in years past, may all explain the lack of significant findings.

*The glass ceiling scenario.*

Objective strain as measured by glass ceiling was not a significant predictor of intentions to steal for females, which did not support hypothesis one (See Column 1, Table 19). In terms of the control variables for objective strain and intentions to steal, impulsivity ( $p = .072$ ) and commitment ( $p = .002$ ) were significant predictors of intentions to steal. A unit difference in impulsivity was associated with odds of 14% greater in intentions to steal. A unit difference in commitment was associated with odds of 21% less in intentions to steal. Both of these results were in the expected direction.

Objective strain as measured by glass ceiling significantly ( $p = .000$ ) predicted the subjective evaluation of that strain for females, which was supportive of hypothesis two (See Column 2, Table 19). A unit difference in objective strain was associated with odds of 5 ½ times greater in subjective strain. Race (White) was also a significant ( $p = .009$ ) predictor of subjective strain. A unit difference in race (White) was associated with odds of 62% less in subjective strain.

Hypothesis three was supported (See Column 3, Table 19). Subjective strain as measured by glass ceiling was a significant ( $p = .000$ ) predictor of anger for females. A unit difference in subjective strain was associated with odds of 8.8 times greater in anger.

No control variables were significant for this section. Likewise, subjective strain as measured by glass ceiling significantly ( $p = .001$ ) predicted depression for females, which was also supportive of hypothesis three (column 4, Table 19). A unit difference in

Table 19. Logistic model of glass ceiling vignette for females (n = 206)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	.90	5.48 **				.69
	b(s.e.)	-.11 (.34)	1.70 (.36)				-.37 (.41)
Subjective Strain	Exp(B)			8.86 **	4.50 **		1.17
	b(s.e.)			2.18 (.48)	1.50 (.46)		.15 (.40)
Anger	Exp(B)					1.68	1.91
	b(s.e.)					.52 (.51)	.65 (.56)
Depression	Exp(B)					.95	1.04
	b(s.e.)					-.05 (.38)	.04 (.40)
Age	Exp(B)	.93	1.09	.98	1.01	.93	.93
	b(s.e.)	-.07 (.05)	.09 (.060)	-.02 (.05)	.01 (.03)	-.07 (.05)	-.07 (.05)
White	Exp(B)	1.32	.38 **	1.33	1.21	1.33	1.37
	b(s.e.)	.28 (.33)	-.98 (.37)	.29 (.45)	.19 (.35)	.29 (.34)	.32 (.34)
Married	Exp(B)	.83	.88	.65	2.03	.84	.83
	b(s.e.)	-.18 (.67)	-.13 (.68)	-.43 (.72)	.71 (.57)	-.18 (.68)	-.19 (.68)
Impulsivity	Exp(B)	1.14 +	.89	1.15	.99	1.14 +	1.13 +
	b(s.e.)	.13 (.07)	-.12 (.08)	.14 (.11)	-.00 (.07)	.13 (.07)	.13 (.07)
Peer Association	Exp(B)	.98	.98	.99	.91	.98	.97
	b(s.e.)	-.03 (.07)	-.02 (.08)	-.01 (.09)	-.09 (.07)	-.02 (.07)	-.03 (.07)
Pre-disposition	Exp(B)	1.04	.98	1.01	1.08 +	1.04	1.04
	b(s.e.)	.04 (.04)	-.02 (.05)	.01 (.06)	.08 (.05)	.04 (.05)	.04 (.05)
Family Support	Exp(B)	1.14	1.10	1.01	.94	1.14	1.14
	b(s.e.)	.13 (.09)	.09 (.11)	.01 (.14)	-.07 (.10)	.13 (.09)	.13 (.09)
Friend Support	Exp(B)	.91	.91	1.05	.95	.91	.99
	b(s.e.)	-.10 (.12)	-.09 (.13)	.05 (1.59)	-.05 (.12)	-.09 (.12)	-.11 (.12)
Commitment	Exp(B)	.79 **	.91	.91	1.20 *	.79 **	.79 **
	b(s.e.)	-.24 (.08)	-1.00 (.08)	-.09 (.10)	.18 (.07)	-.23 (.08)	-.23 (.93)
Commit. Dummy	Exp(B)	.11 *	.32	.34	15.16 **	.12 *	.12 *
	b(s.e.)	-2.19 (.92)	-1.15 (1.04)	-1.07 (1.29)	2.72 (.96)	-2.09 (.94)	-2.09 (.93)
Chi-Square(df)		29.35 (11)	42.81 (11)	27.32 (11)	27.07 (11)	30.36 (12)	31.22 (14)
-2 Log		230.88	198.22	146.20	221.11	229.87	229.02
Nagelkerke R <sup>2</sup>		.19	.27	.22	.18	.19	.20
Significance		.00	.00	.00	.00	.00	.01

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

subjective strain was associated with odds of 4 ½ times greater in depression. Pre-disposition ( $p = .081$ ) and commitment ( $p = .013$ ) were also significant predictors of depression for females. A unit difference in pre-disposition was associated with odds of 8% greater in depression, while a unit difference in commitment (positive) was associated with odds of 20% greater in depression. These results were in the expected direction.

Anger and depression were not significant predictors of intentions to steal for females (See Column 5, Table 19), which was not supportive of hypothesis four. Impulsivity was a weak, but significant ( $p = .086$ ) predictor of intentions to steal for females. A unit difference in impulsivity was associated with odds of 14% greater in intentions to steal. Commitment was also significantly ( $p = .002$ ) associated with intentions to steal. A unit difference in commitment was associated with odds of 21% less in intentions to steal.

The results for the full model of glass ceiling discrimination for females were not supportive of GST overall (See Column 6, Table 19). Adding anger and depression to the model, however, did reduce the effect of the objective strain. This was in the predicted direction (see Mazerole and Piquero 1998) and was supportive of GST. Both impulsivity and commitment were significant predictors of intentions to steal.

*The sticky floors scenario.*

Objective strain as measured by sticky floors for females was not a significant predictor of intentions to steal and therefore did not support hypothesis one (See Column 1, Table 20). In terms of the control variables for objective strain, impulsivity ( $p = .078$ ) and commitment ( $p = .009$ ) were significantly associated with intentions to steal A unit

difference in impulsivity was associated with odds of 14% greater in intentions to steal. A unit difference in commitment to the workplace was associated with odds of 18% less in intentions to steal. Both results were in the expected direction.

Objective strain as measured by sticky floors scenario was a significant ( $p = .000$ ) predictor of the subjective evaluation of that strain for females, which was supportive of hypothesis two (See Column 2, Table 20). A unit difference in objective strain was associated with odds of over 9 ½ times greater in subjective strain. Race ( $p = .004$ ) and peer association ( $p = .070$ ) were also significant predictors of subjective strain. A unit difference in race (White) was associated with a 62% decrease in subjectivity. Also, a unit difference in peer association (positive) was associated with odds of 14% greater in subjectivity. Thus, white females were less likely to view the sticky floors scenario subjectively, however those who indicated their peer associations were positive were more likely to view sticky floors subjectively. Additionally, subjective strain as measured by sticky floors discrimination was a significant ( $p = .000$ ) and positive predictor of anger for females, which supports hypothesis three (See Column 4, Table 20). A unit difference in subjective strain was associated with odds of 9.7 times greater in anger. Pre-disposition was also significantly ( $p = .037$ ) associated with anger. A unit difference in pre-disposition was associated with odds of 12% greater in anger.

Similarly, subjective strain as measured by sticky floors scenario significantly ( $p = .000$ ) predicted depression for females, also supportive of hypothesis three (See Column 5, Table 20). A unit difference in subjective strain was associated with odds of 7 1/3 times greater in depression. Pre-disposition ( $p = .025$ ) and commitment ( $p = .001$ ) also predicted depression for females. A unit difference in pre-disposition was

Table 20. Logistic model of sticky floors vignette for females (n = 206)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	1.34	9.71 **				1.20
	b(s.e.)	.29 (.33)	2.27 (.37)				.18 (.41)
Subjective Strain	Exp(B)			9.74 **	7.33 **		1.21
	b(s.e.)			2.28 (.37)	1.89 (.54)		.19 (.41)
Anger	Exp(B)					1.01	.84
	b(s.e.)					.01 (.38)	-.17 (.46)
Depression	Exp(B)					1.69	1.60
	b(s.e.)					.53 (.44)	.47 (.45)
Age	Exp(B)	.93	.99	1.06	1.04	.93	.93
	b(s.e.)	-.07 (.05)	-.01 (.04)	.05 (.05)	.04 (.04)	-.08 (.05)	-.07 (.05)
White	Exp(B)	1.33	.36 **	.73	1.15	1.36	1.37
	b(s.e.)	.28 (.34)	-1.03 (.36)	-.32 (.37)	.14 (.42)	.31 (.34)	.32 (.35)
Married	Exp(B)	.47	.49	.96	1.28	.48	.48
	b(s.e.)	-.76 (.76)	-.72 (.62)	-.05 (.64)	.25 (.67)	-.74 (.76)	-.74 (.76)
Impulsivity	Exp(B)	1.14 +	1.06	1.01	1.03	1.13 +	1.13 +
	b(s.e.)	.13 (.07)	.06 (.08)	.01 (.08)	.03 (.09)	.13 (.07)	.12 (.07)
Peer Association	Exp(B)	1.00	1.14 +	1.04	.88	1.00	1.00
	b(s.e.)	.00 (.07)	.14 (.08)	.04 (.08)	-.13 (.09)	.00 (.07)	.00 (.07)
Pre-disposition	Exp(B)	1.04	.98	1.12 *	1.12 *	1.03	1.03
	b(s.e.)	.04 (.04)	-.02 (.05)	.11 (.05)	.18 (.14)	.03 (.05)	.03 (.05)
Family Support	Exp(B)	1.02	.99	1.02	.99	1.03	1.03
	b(s.e.)	.02 (.09)	-.01 (.10)	.02 (.10)	-.00 (.11)	.03 (.10)	.03 (.10)
Friend Support	Exp(B)	.95	1.01	.95	.84	.95	.96
	b(s.e.)	-.05 (.12)	.01 (.12)	-.05 (.12)	-.18 (.14)	-.05 (.12)	-.04 (.12)
Commitment	Exp(B)	.83 **	.92	.92	1.39 **	.81 **	.81 **
	b(s.e.)	-.19 (.07)	-.09 (.07)	-.09 (.07)	.33 (.10)	-.21 (.08)	-.21 (.08)
Commit. Dummy	Exp(B)	.14 *	.95	.28	48.59 **	.11 *	.11 *
	b(s.e.)	-1.89 (.92)	-.05 (.98)	-1.28 (.99)	3.89 (1.19)	-2.17 (.95)	-2.19 (.95)
Chi-Square(df)		23.99 (11)	61.22 (11)	57.01 (11)	35.44 (11)	24.85 (12)	25.38 (14)
-2 Log		227.48	209.22	205.79	168.83	226.62	226.09
Nagelkerke R <sup>2</sup>		.16	.35	.34	.25	.16	.17
Significance		.01	.00	.00	.00	.02	.03

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

associated with odds of 12% greater in depression, while a unit difference in commitment was associated with odds of 39% greater in depression. Although both results were in the expected direction, the commitment dummy variable accounting for the missing cases was also significant ( $p = .002$ ), indicating significant differences between the commitment groups and thus making the result unreliable.

Anger and depression were not significantly associated with intentions to steal for females (See Column 5, Table 20), which did not support hypothesis four. Commitment was a significant ( $p = .006$ ) predictor of intentions to steal for females. A unit difference in commitment was associated with odds of 19% less in intentions to steal.

For the full model (See Column 6, Table 20) for females and the sticky floors discrimination, none of the major variables were significant predictors of intentions to steal, but the addition of the negative affective states did slightly reduce the effect of the objective strain, which again was predicted and was supportive of GST. As in the other types of discrimination, impulsivity and commitment were significant. This suggested these are the strongest predictors of intentions to steal.

*The glass escalator scenario.*

Objective strain as measured by glass escalator was a significant ( $p = .098$ ) predictor of intentions to steal for females (See Column 1, Table 21), which was supportive of hypothesis one. A unit difference in the objective strain was associated with odds of almost 2 times greater in intentions to steal. In terms of the control variables for the objective strain, race ( $p = .089$ ) and commitment ( $p = .002$ ) were significantly associated with intentions to steal. A unit difference in race (White) was associated with odds of over 2 times greater in intentions to steal. A unit difference in commitment to the



workplace was associated with odds of 24% less in intentions to steal. These results were in the expected direction.

Objective strain as measured by glass escalator discrimination also significantly ( $p = .000$ ) predicted the subjective evaluation of that strain for females and was supportive of hypothesis two (See Column 2, Table 21). A unit difference in objective strain was associated with odds of over 5 ½ times greater in subjectivity. For control variables, age ( $p = .093$ ) and race ( $p = .071$ ) were also significant predictors of subjectivity. A unit difference in age (older) was associated with odds of 7% greater in subjectivity and a unit difference in race (White) was associated with odds of 46% less in subjectivity.

Subjective strain as measured by glass escalator discrimination was a significant ( $p = .000$ ) predictor of anger for females and was supportive of hypothesis three (See Column 3, Table 21). A unit difference in subjective strain was associated with odds of over 15 times greater in anger. Impulsivity ( $p = .068$ ), peer associations ( $p = .073$ ) and pre-disposition ( $p = .025$ ) were also significant predictors of anger for females. A unit difference in impulsivity was associated with odds of 13% less in anger; a unit difference in peer associations was associated with odds of 13% less in anger; and a unit difference in pre disposition was associated with odds of 12% greater in anger.

Somewhat contrary to theory, females who indicated more positive peer associations and high impulsivity were actually less likely to view the scenario with anger. This may simply be that females respond to strain with less anger and adopt alternative coping mechanisms.

Table 21. Logistic model of glass escalator vignette for females (n = 206)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	1.96 +	5.52 **				1.16
	b(s.e.)	.67 (.41)	1.71 (.35)				.15 (.50)
Subjective Strain	Exp(B)			15.25 **	6.83 **		4.82 **
	b(s.e.)			2.72 (.40)	1.92 (.52)		1.59 (.54)
Anger	Exp(B)					1.68	.73
	b(s.e.)					.52 (.45)	-.32 (.54)
Depression	Exp(B)					1.29	1.23
	b(s.e.)					.25 (.58)	.20 (.64)
Age	Exp(B)	.94	1.07 +	1.04	1.11 *	.94	.94
	b(s.e.)	-.06 (.06)	.06 (.04)	.04 (.04)	.10 (.04)	-.06 (.07)	-.06 (.06)
White	Exp(B)	2.02 +	.54 +	1.73	1.22	1.90	2.70 *
	b(s.e.)	.71 (.42)	-.62 (.35)	.55 (.38)	.20 (.47)	.64 (.41)	.99 (.45)
Married	Exp(B)	.33	.74	1.00	1.04	.34	.24
	b(s.e.)	-1.09 (.99)	-.30 (.62)	.00 (.70)	.04 (.73)	-1.09 (.98)	-1.39 (.99)
Impulsivity	Exp(B)	1.06	.90	.87 +	.80 *	1.09	1.09
	b(s.e.)	.06 (.08)	-.11 (.07)	-.14 (.08)	-.22 (.10)	.08 (.09)	.08 (.09)
Peer Association	Exp(B)	.97	1.09	.87 +	.74 **	.98	.96
	b(s.e.)	-.03 (.09)	.08 (.07)	-.14 (.08)	-.30 (.11)	-.02 (.09)	-.04 (.09)
Pre-disposition	Exp(B)	1.01	.94	1.12 *	1.24 **	1.01	1.05
	b(s.e.)	.01 (.05)	-.06 (.05)	.11 (.05)	.22 (.06)	.01 (.05)	.05 (.06)
Family Support	Exp(B)	1.19	1.08	.94	1.06	1.21 +	1.22 +
	b(s.e.)	.18 (.11)	.07 (.09)	-.06 (.10)	.06 (.13)	.19 (.11)	.20 (.11)
Friend Support	Exp(B)	.80	.95	.84	.68 *	.81	.81
	b(s.e.)	-.22 (.15)	-.05 (.12)	-.18 (.13)	-.39 (.16)	-.21 (.15)	-.21 (.15)
Commitment	Exp(B)	.76 **	.94	.96	1.29 *	.76 **	.75 **
	b(s.e.)	-.28 (.09)	-.07 (.07)	-.04 (.08)	.26 (.10)	-.28 (.10)	-.29 (.10)
Commit. Dummy	Exp(B)	.09 *	.41	1.48	36.55 **	.08 *	.08 *
	b(s.e.)	-2.39 (1.09)	-.90 (.94)	.39 (1.10)	3.59 (1.29)	-2.53 (1.09)	-2.50 (1.19)
Chi-Square(df)		27.36 (11)	47.08 (11)	78.24 (11)	51.14 (11)	27.06 (12)	37.67 (14)
-2 Log		171.28	226.80	201.40	135.49	171.59	160.98
Nagelkerke R <sup>2</sup>		.20	.28	.43	.37	.20	.27
Significance		.00	.00	.00	.00	.01	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

Subjective strain as measured by glass escalator discrimination was a significant ( $p = .000$ ) predictor of depression for females and was also supportive of hypothesis three (See Column 4, Table 21). A unit difference in subjective strain was associated with odds of almost 7 times greater in depression for females. In terms of the control variables, females who were older ( $p = .018$ ), who had a high pre-disposition ( $p = .001$ ), and higher commitment to the workplace ( $p = .010$ ), were significantly more likely to experience depression. A unit difference in age, pre-disposition, and commitment was associated with odds of 10%, 24%, and 29% increase respectively in depression. Females who indicated high impulsivity ( $p = .031$ ), positive peer associations ( $p = .004$ ), and lower friend support ( $p = .017$ ), were associated significantly with depression. A unit difference in impulsivity, peer associations, and friend support was associated with odds of 20%, 26%, and 32% respectively less in depression. The commitment dummy variable was also significant ( $p = .006$ ), indicating significant differences in terms of commitment between those who worked and those who did not.

In terms of hypothesis four (See Column 5, Table 21), anger and depression were not significantly associated with higher intentions to steal for females, which did not support hypothesis four. Commitment, however, was a significant ( $p = .003$ ) predictor of intentions to steal for females. A unit difference in commitment was associated with odds of 24% less in intentions to steal. This was in the expected direction.

The full model of the glass escalator discrimination for females indicates partial support for GST (See Column 6, Table 21). Subjective strain was a significant predictor of intentions to steal. A unit difference in subjective strain was associated with odds of over 4 1/2 times greater in intentions to steal. Neither anger nor depression, however, was a

significant predictor of intentions to steal. Interestingly, this was the only model that indicated race (White) ( $p = .027$ ) and family support (positive) as having a significant effect on intentions to steal. Again, these results challenge the usefulness of GST in predicting theft. In this case, strain was a better predictor than the negative emotional states, which does not support GST in general.

### *Males*

#### *The sexual harassment scenario.*

For males, objective strain as measured by sexual harassment discrimination (See Column 1, Table 22), was not a significant predictor of intentions to steal. The results did not support hypothesis one. When controls were added, impulsivity ( $p = .000$ ) and pre-disposition ( $p = .004$ ) were positively and significantly associated with intentions to steal for males. A unit difference in impulsivity was associated with odds of 46% greater in intentions to steal. A unit difference in pre-disposition was associated with odds of 16% greater in intentions to steal. Both of these last two results were in the expected direction. This would suggest, at least in terms of sexual harassment, strain alone is not as good a predictor of intentions to steal. This is perhaps not surprising given the effect of impulsivity and pre-disposition on males and the uniqueness of sexual harassment.

For males, objective strain as measured by sexual harassment discrimination was significantly ( $p = .000$ ) and positively associated with subjective strain (See Column 2, Table 22), which supported hypothesis two. A unit difference in objective strain was associated with odds 50 times greater in subjectivity. For the control variables, race was significantly ( $p = .040$ ) associated with the subjective evaluation of sexual harassment as strain. A unit increase in race (White) was associated with odds 60% less in subjective

Table 22. Logistic model of sexual harassment vignette for males (n = 146)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	1.07	50.69 **				.69
	b(s.e.)	.06 (.01)	3.92 (1.11)				-.37 (.89)
Subjective Strain	Exp(B)			58.43 **	2.85 **		.72
	b(s.e.)			4.07 (.73)	1.04 (.39)		-.33 (.55)
Anger	Exp(B)					.78	1.14
	b(s.e.)					-.25 (.54)	.13 (.75)
Depression	Exp(B)					13.45 *	14.24 *
	b(s.e.)					2.59 (1.09)	2.69 (1.19)
Age	Exp(B)	1.02	1.03	1.13	.99	.99	.99
	b(s.e.)	.02 (.06)	.03 (.07)	.12 (.09)	-.00 (.05)	-.01 (.06)	-.01 (.06)
White	Exp(B)	.64	.41 *	1.43	.91	.74	.74
	b(s.e.)	.45 (.43)	-.88 (.44)	.36 (.60)	-.10 (.39)	-.30 (.44)	-.30 (.45)
Married	Exp(B)	.26	1.95	.51	1.13	.26	.25
	b(s.e.)	-1.29 (1.39)	.67 (1.51)	-.68 (1.51)	.13 (1.03)	-1.29 (1.49)	-1.39 (1.49)
Impulsivity	Exp(B)	1.46 **	.94	1.00	1.19 *	1.48 *	1.47 *
	b(s.e.)	.38 (.10)	-.07 (.10)	.00 (.12)	.18 (.09)	.39 (.11)	.38 (.11)
Peer Association	Exp(B)	.98	1.10	.83	1.04	.98	.99
	b(s.e.)	-.02 (.09)	.10 (.09)	-.19 (.14)	.04 (.08)	-.02 (.09)	-.02 (.09)
Pre-disposition	Exp(B)	1.16 **	.98	.91	.97	1.17 **	1.17 **
	b(s.e.)	.15 (.05)	-.03 (.05)	-.09 (.08)	-.03 (.05)	.16 (.05)	.16 (.05)
Family Support	Exp(B)	.93	1.05	.79	.93	.98	.97
	b(s.e.)	-.07 (.14)	.05 (.16)	-.24 (.22)	-.07 (.14)	-.03 (.15)	-.03 (.17)
Friend Support	Exp(B)	1.09	.85	1.01	1.13	1.04	1.02
	b(s.e.)	.08 (.16)	-.16 (.16)	.01 (.10)	.12 (.14)	.04 (.17)	.02 (.17)
Commitment	Exp(B)	.95	.99	1.08	1.08	.93	.93
	b(s.e.)	-.06 (.08)	-.01 (.08)	.08 (.10)	.08 (.08)	-.08 (.09)	-.08 (.09)
Commit. Dummy	Exp(B)	.98	.44	1.27	2.08	.94	.83
	b(s.e.)	-.02 (.99)	-.83 (1.06)	.24 (1.36)	.73 (.93)	-.06 (1.02)	-.19 (1.04)
Chi-Square(df)		38.92 (11)	43.47 (11)	69.91 (11)	42.98 (11)	45.73 (12)	46.32 (14)
-2 Log		158.48	146.11	91.47	29.51	151.69	151.08
Nagelkerke R <sup>2</sup>		.32	.38	.57	.65	.37	.37
Significance		.00	.00	.00	.00	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

evaluation of that strain. Thus, White males tended to view the sexual harassment scenario as less subjectively stressful than non-Whites.

Subjective strain as measured by sexual harassment discrimination was a significant ( $p = .000$ ) and positive predictor of anger for males (See Column 3, Table 22), and was supportive of hypothesis three and GST. A unit difference in subjective strain was associated with odds of 58 times greater in anger. No control variables were significant for this model.

Subjective strain as measured by sexual harassment discrimination was also a significant predictor of depression for males ( $p = .007$ ) (See Column 4, Table 22), which supported hypothesis three and supported GST in general. A unit difference in subjective strain was associated with a result two times greater in depression. As with the combined measure, the depression variable was dichotomized using the 52 percentile to account for high standard errors due to low cell count. Impulsivity ( $p = .038$ ) was a significant predictor of depression for males. A unit difference in impulsivity was associated with odds 19% greater in depression.

Also in the sexual harassment scenario (See Column 5, Table 22), anger was not a significant predictor of intentions to steal for males, which did not support hypothesis four however, depression was, which did support hypothesis four ( $p = .024$ ). A unit difference in depression is associated with odds of 13 times greater in intentions to steal for sexual harassment. It is unclear why depression is a significant predictor of intentions to steal while anger is not. Howerton (2005:47), however, found similar results. In her study of gender and crime, she also found that for male respondents, "emotion-focused coping was significantly positively related to depression." Contrary to

theory, as anger increased, intentions to steal decreased. This could result from males not viewing sexual harassment as high in magnitude or problematic when it does happen. They therefore may seek legitimate coping strategies when confronted with sexual harassment. In addition, impulsivity ( $p = .000$ ) and pre-disposition ( $p = .004$ ) were significant predictors of intentions to steal. A unit difference in impulsivity was associated with odds of 50% greater in intentions to steal, while a unit difference in pre-disposition was associated with odds of 17% greater in intentions to steal.

The full model for sexual harassment discrimination and males shows little support for GST (See Column 6, Table 22). Objective and subjective strains were not significant, as was predicted by hypothesis 4. The effect of the objective strain greatly decreased which was supportive of GST in general. Anger was not a significant predictor of intentions to steal for males; however, depression was significant ( $p = .022$ ). A unit difference in depression was associated with odds of over 14 times greater in intentions to steal. In addition, impulsivity and predisposition were significant predictors of intentions to steal for males. These results suggest strain alone is at least partially predictive of intentions to steal in this situation, but that the effects of impulsivity and pre-disposition are better predictors.

*The pay gap scenario.*

Objective strain as measured by pay gap discrimination was not a significant predictor of intentions to steal for males (See Column 1, Table 23), which did not support hypothesis one. Impulsivity ( $p = .005$ ) and pre-disposition ( $p = .006$ ) however were significant predictors of intentions to steal. A unit difference in impulsivity was associated with odds of 30% greater in intentions to steal. A unit difference in pre-

disposition was associated with odds of 16% greater in intentions to steal. As impulsivity and pre-disposition increased, intentions to steal increased. Both of these results were in the expected direction.

Objective strain as measured by pay gap discrimination significantly ( $p = .000$ ) and positively predicted the subjective evaluation of that strain for males, which was supportive of hypothesis two (See Column 2, Table 23). A unit difference in objective strain was associated with odds of almost 5 times greater in subjective strain. No control variables were significant for this model.

Subjective strain as measured by the pay gap discrimination was a significant ( $p = .000$ ) and positive predictor of anger for males, which supported hypothesis three (See Column 3, Table 23). A unit difference in subjective strain was associated with odds of 44 times greater in anger. Peer association ( $p = .055$ ) and commitment ( $p = .096$ ) were also significant predictors of anger at the .10 level. A unit difference in peer association (positive) was associated with odds of 20% less anger and a unit difference in commitment was associated with odds of 17% greater in anger. Both of these results were in the expected direction. This is consistent with prevailing views on strain and peer association (see Agnew and Raskin-White 1992).

Likewise, subjective strain as measured by the pay gap discrimination significantly ( $p = .056$ ) predicted depression for males (See Column 4, Table 23), which was also supportive of hypothesis three. A unit difference in subjective strain was associated with odds of 3.2 times greater in depression. Peer association also significantly ( $p = .035$ ) predicted depression. A unit difference in peer association (positive) was



Table 23. Logistic model of pay gap vignette for males (n = 146)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	1.82	4.87 **				.79
	b(s.e.)	.60 (.43)	1.58 (.42)				-.23 (.53)
Subjective Strain	Exp(B)			44.17 **	3.21 +		.72
	b(s.e.)			3.79 (.70)	1.17 (.61)		-.33 (.56)
Anger	Exp(B)					4.75 **	6.26 **
	b(s.e.)					1.59 (.48)	1.79 (.62)
Depression	Exp(B)					1.12	1.23
	b(s.e.)					1.09 (.70)	.21 (.72)
Age	Exp(B)	.99	1.10	.95	1.09	.98	.99
	b(s.e.)	-.01 (.06)	.09 (.06)	-.05 (.07)	.09 (.07)	-.02 (.06)	-.01 (.06)
White	Exp(B)	.62	1.05	.70	.69	.65	.64
	b(s.e.)	-.48 (.42)	.05 (.43)	-.36 (.49)	-.38 (.63)	-.43 (.43)	-.45 (.43)
Married	Exp(B)	.24	3.11	.51	1.00	.18	.19
	b(s.e.)	-1.39 (1.29)	1.13 (1.32)	-.67 (1.34)	-.00 (1.39)	-1.69 (1.39)	-1.59 (1.39)
Impulsivity	Exp(B)	1.30 **	.86	.95	.92	1.38 **	1.37 **
	b(s.e.)	.26 (.09)	-.15 (.09)	-.05 (.11)	-.08 (.14)	.32 (.10)	.31 (.10)
Peer Association	Exp(B)	.97	.94	.80 *	.76 *	1.02	1.03
	b(s.e.)	-.04 (.09)	-.07 (.09)	-.22 (.11)	-.27 (.13)	.02 (.09)	.03 (.09)
Pre-disposition	Exp(B)	1.16 **	1.00	.93	.99	1.19 **	1.19 **
	b(s.e.)	.15 (.06)	.01 (.05)	-.07 (.06)	-.00 (.07)	.17 (.06)	.18 (.06)
Family Support	Exp(B)	1.04	1.00	.94	1.01	1.07	1.08
	b(s.e.)	.04 (.15)	-.01 (.15)	-.06 (.17)	.01 (.22)	.07 (.15)	.07 (.15)
Friend Support	Exp(B)	1.13	.91	.96	.94	1.13	1.12
	b(s.e.)	.12 (.15)	-.09 (.15)	-.04 (.18)	-.07 (.22)	.12 (.16)	.11 (.16)
Commitment	Exp(B)	.91	.98	1.17	1.07	.89	.88
	b(s.e.)	-.09 (.08)	-.02 (.08)	.16 (.09)	.07 (.11)	-.12 (.08)	-.12 (.08)
Commit. Dummy	Exp(B)	.85	.21	1.10	.xx ++	1.18	1.05
	b(s.e.)	-.17 (.98)	-1.54 (1.11)	.09 (1.17)	.xx ++	.16 (1.01)	.05 (.10)
Chi-Square(df)		34.55 (11)	38.09 (11)	74.84 (11)	19.53 (11)	43.37 (12)	45.92 (14)
-2 Log		162.85	153.36	121.82	84.77	152.02	151.47
Nagelkerke R <sup>2</sup>		.29	.32	.55	.25	.36	.37
Significance		.00	.00	.00	.05	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. ++=removed from analysis. Two Tailed.

associated with odds of 24% less in depression. This result was in the expected direction. The commitment variable and commitment dummy variable were both trimmed from the model due to excessively high standard errors caused by low cell counts for depression. In terms of hypothesis four and the pay gap scenario, anger was also a significant ( $p = .072$ ) predictor of intentions to steal for males (See Column 5, Table 23). A unit difference in anger was associated with odds of over 4 ½ times greater in intentions to steal. This result was supportive of hypothesis 4 and with GST's contention that anger may be the emotion most strongly associated with deviance. Depression was not a significant predictor of intentions to steal. Impulsivity and pre-disposition were also significant ( $p = .001$ ,  $p = .003$  respectively) with a unit difference in impulsivity associated with odds of 38% greater in intentions to steal and a unit increase in pre-disposition associated with odds of 19% greater in intentions to steal.

For the full pay gap model (See Column 6, Table 23), objective and subjective strains were not significant. The effect of the objective strain of the pay gap was reduced substantially suggesting that its effect is mediated by negative affective states. Additionally, anger was a significant predictor of intentions to steal ( $p = .003$ ). A unit difference in anger was associated with odds of over 6 times greater in intentions to steal. This result is consistent with GST and with the prediction of hypothesis four. Consistent with other analyses, impulsivity and predisposition were also significant.

*The glass ceiling scenario.*

Objective strain as measured by glass ceiling discrimination was a significant ( $p = .086$ ) predictor of intentions to steal for males and was supportive of hypothesis one (See Ccolumn 1, Table 24). A unit difference in objective strains was associated with odds of

2.06 times greater in intentions to steal. Impulsivity ( $p = .000$ ) and pre-disposition ( $p = .007$ ) were also positively and significantly associated with intentions to steal for males. A unit difference in impulsivity was associated with odds of 48% greater in intentions to steal and a unit difference in pre-disposition was associated with odds of 16% greater in intentions to steal. All of these results were in the expected direction.

Objective strain as measured by the glass ceiling discrimination was also a significant ( $p = .000$ ) predictor of the subjective evaluation of that strain for males and was also supportive of hypothesis two (See Column 2, Table 24). A unit difference in the objective strain was associated with odds 5 ½ times greater in subjective strain. Impulsivity was also a significant ( $p = .030$ ) predictor of subjective strain. A unit difference in impulsivity was associated with odds of 18% less in subjectivity. Thus, the subjective evaluation of the glass ceiling as a form of strain for males was inversely related to impulsivity, which was not in the expected direction.

When regressed onto anger and depression in turn, subjective strain as measured by glass ceiling discrimination was a significant ( $p = .000$ ) and positive predictor of anger for males, which was supportive of hypothesis three (See Column 3, Table 24). A unit difference in subjective strain was associated with odds of 9.3 times greater in anger. Peer association was also a significant ( $p = .055$ ) predictor of anger in the glass-ceiling scenario. A unit difference in peer association was associated with odds of 17% less in anger. This was consistent with expectations. Similarly supportive of hypothesis three, subjective strain as measured by glass ceiling discrimination significantly ( $p = .093$ ) predicted the negative affective state of depression for males (See Column 4, Table 24). A unit difference in subjective strain was associated with odds of over 2 ½ times greater

Table 24. Logistic model of glass ceiling vignette for males (n = 146)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	2.06 +	5.50 **				1.31
	b(s.e.)	.72 (.42)	1.70 (.41)				.27 (.51)
Subjective Strain	Exp(B)			9.29 **	2.69 +		2.31 +
	b(s.e.)			2.23 (.49)	.99 (.59)		.84 (.51)
Anger	Exp(B)					2.24 +	1.40
	b(s.e.)					.81 (.47)	.33 (.54)
Depression	Exp(B)					1.44	1.21
	b(s.e.)					.37 (.65)	.19 (.68)
Age	Exp(B)	1.02	1.05	1.10	1.06	1.00	1.00
	b(s.e.)	.02 (.06)	.05 (.06)	.09 (.07)	.05 (.07)	-.01 (.06)	-.00 (.06)
White	Exp(B)	.87	.81	.59	.45	.91	.96
	b(s.e.)	-.14 (.44)	-.21 (.42)	-.54 (.46)	-.80 (.56)	-.10 (.44)	-.04 (.45)
Married	Exp(B)	.25	4.16	.22	1.25	.28	.19
	b(s.e.)	-1.39 (1.39)	1.43 (1.31)	-1.54 (1.29)	.22 (1.39)	-1.29 (1.39)	-1.69 (1.39)
Impulsivity	Exp(B)	1.49 **	.82 *	.98	1.02	1.54 **	1.58 **
	b(s.e.)	.40 (.10)	-.20 (.09)	-.11 (.10)	.02 (.12)	.43 (.10)	.46 (.11)
Peer Association	Exp(B)	1.10	.91	.83 +	.80 +	1.03	1.03
	b(s.e.)	.01 (.09)	-.09 (.09)	-.19 (.10)	-.23 (.12)	.03 (.09)	.03 (.09)
Pre-disposition	Exp(B)	1.16 **	.97	.94	.96	1.17 **	1.17 **
	b(s.e.)	.15 (.06)	-.03 (.05)	-.06 (.05)	.06 (.37)	.15 (.06)	.16 (.06)
Family Support	Exp(B)	.84	.99	.87	.96	.87	.87
	b(s.e.)	-.17 (.15)	-.01 (.14)	-.14 (.16)	-.04 (.20)	-.14 (.15)	-.14 (.15)
Friend Support	Exp(B)	1.23	.86	.86	.98	1.22	1.26
	b(s.e.)	.21 (.17)	-.15 (.15)	-.15 (.17)	-.02 (.20)	.20 (.17)	.24 (.17)
Commitment	Exp(B)	.99	.92	.89	.94	1.01	1.01
	b(s.e.)	-.01 (.08)	-.08 (.08)	-.12 (.09)	-.06 (.10)	.01 (.08)	.01 (.09)
Commit. Dummy	Exp(B)	3.02	.18 +	.12 +	.15	4.14	5.28
	b(s.e.)	1.09 (.99)	-1.72 (1.02)	-2.09 (1.09)	-1.89 (1.49)	1.39 (1.09)	1.69 (1.09)
Chi-Square(df)		43.46 (11)	37.74 (11)	54.76 (11)	16.50 (11)	44.62 (12)	48.05 (14)
-2 Log		154.22	160.43	137.56	99.25	153.05	149.62
Nagelkerke R <sup>2</sup>		.35	.31	.43	.20	.36	.38
Significance		.00	.00	.00	.12	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

in depression for males. In addition, positive peer associations significantly ( $p = .057$ ) depression for males. A unit difference in peer associations was associated with odds of 20% less in depression, which was expected.

When regressed onto intentions to steal, anger was positively and significantly ( $p = .083$ ) associated with higher intentions to steal in the glass ceiling discrimination, which supported hypothesis four (See Column 5, Table 24). A unit difference in anger was associated with odds of 2 ¼ times greater in intentions to steal. Males also indicated significant ( $p = .002$ ,  $p = .003$  respectively) and positive associations between impulsivity and pre-disposition and high intentions to steal. Depression was not significant, which did not support hypothesis four. A unit difference in impulsivity was associated with odds of 54% greater in intentions to steal. Also, a unit difference in pre-disposition was associated with odds of 17% greater in intentions to steal. Both results were in the expected direction.

The full model indicates little support for GST (See Column 6, Table 24). Neither anger nor depression was a significant predictor of intentions to steal. Further, subjective strain was significant. In support of GST, however, the effect of subjective strain and objective strain were both reduced when anger and depression were added to the model. This affirms GST's contention that negative affect mediates the effect of objective strain and subjective strain on crime, but for the glass ceiling discrimination GST is not a good predictor of intentions to steal.

*The sticky floors scenario.*

For males, objective strain as measured by sticky floors discrimination was significantly ( $p = .025$ ) associated with intentions to steal and supported hypothesis one

(See Column 1, Table 25). A unit difference in objective strain was associated with odds of 2.82 times greater in intentions to steal. Impulsivity ( $p = .001$ ), pre-disposition ( $p = .008$ ), and friend support ( $p = .050$ ) were also positively and significantly associated with intentions to steal for males. A unit difference in impulsivity was associated with odds of 37% greater in intentions to steal; a unit difference in pre-disposition was associated with odds of 15% greater in intentions to steal; and a unit difference in friend support was associated with odds of 37% greater in intentions to steal; as friend support increased, intentions to steal increased. This last result is interesting, as it would imply the friends might be a negative influence on the respondent.

Objective strain as measured by sticky floors discrimination was also a significant ( $p = .000$ ) predictor of the subjective evaluation of that strain for males and was supportive of hypothesis two (See Column 2, Table 25). A unit difference in objective strain was associated with odds of over 16 times greater in subjectivity. Marital status was also a significant ( $p = .046$ ) predictor of subjective strain. A unit difference in marital status (married) was associated with odds of 19 ½ times greater in subjectivity. This result was consistent with expectations.

Subjective strain as measured by sticky floors discrimination was a significant ( $p = .000$ ) and positive predictor of anger for males. This finding supported hypothesis three (See Column 3, Table 25). A unit difference in subjective strain was associated with odds of over 30 times greater in anger. Race (White,  $p = .080$ ) and friend support ( $p = .044$ ) were also significant predictors of anger. A unit difference in race (White) was associated with odds of 2 ½ times greater in anger and a unit difference in friend support was associated with odds of 31% less in anger. This was contrary to what was expected unless

their friends are viewed as a negative influence since negative relations have a substantial effect on social control (Agnew and Raskin-White 1992).

Subjective strain as measured by sticky floors discrimination also significantly ( $p = .005$ ) predicted depression in males, which supported hypothesis three (See Column 4, Table 25). A unit difference in subjective strain was associated with odds of over 7 times greater for depression for males. Impulsivity ( $p = .093$ ) and peer association ( $p = .080$ ) were also significant predictors of depression for males. A unit difference in impulsivity was associated with odds of 21% less depression for males. This was not in the expected direction. A unit difference in peer association was associated with odds of 22% less in depression for males.

Anger and depression were significantly ( $p = .002$ ,  $p = .044$  respectively) and positively associated with higher intentions to steal, which supported hypothesis four (See Column 5, Table 25). A unit difference in anger was associated with odds of over 4 times greater in intentions to steal. In addition, a unit difference in depression was associated with odds of 5 ½ times greater in intentions to steal.

Findings indicated significant ( $p = .000$ ,  $p = .018$ ,  $p = .032$  respectively) and positive associations between impulsivity, pre-disposition, friend support, and intentions to steal for males. A unit difference in impulsivity was associated with odds of 50% greater in intentions to steal, a unit difference in pre-disposition was associated with odds of 14% greater, and a unit difference in friend support was associated with odds of 44% greater in intentions to steal. This last result is interesting depending on whether the friends are a positive or negative influence.

Table 25. Logistic model of sticky floors vignette for males (n = 146)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	2.82 *	16.38 **				.53
	b(s.e.)	.99 (.46)	2.79 (.56)				-.65 (.66)
Subjective Strain	Exp(B)			30.30 **	7.33 **		1.93
	b(s.e.)			3.41 (.55)	1.99 (.71)		.66 (.57)
Anger	Exp(B)					4.35 **	4.02 *
	b(s.e.)					1.49 (.48)	1.39 (.61)
Depression	Exp(B)					5.47 *	6.71 *
	b(s.e.)					1.69 (.84)	1.89 (.61)
Age	Exp(B)	.99	.92	1.18	1.10	.96	.97
	b(s.e.)	-.02 (.06)	-.08 (.06)	.12 (.09)	.09 (.07)	-.04 (.06)	-.03 (.06)
White	Exp(B)	1.10	.62	2.49 +	.67	1.04	1.08
	b(s.e.)	.09 (.42)	-.47 (.46)	.91 (.52)	-.40 (.64)	.04 (.47)	.08 (.49)
Married	Exp(B)	.40	19.52 *	.11	.88	.56	.49
	b(s.e.)	-.93 (1.29)	2.97 (1.49)	-2.19 (1.49)	-.13 (1.29)	-.57 (1.49)	-.72 (1.49)
Impulsivity	Exp(B)	1.37 **	.96	.95	.79	1.47 **	1.49 **
	b(s.e.)	.32 (.10)	-.04 (.09)	-.05 (.11)	-.23 (.14)	.39 (.11)	.40 (.11)
Peer Association	Exp(B)	1.05	1.17	.96	.78 +	1.03	1.01
	b(s.e.)	.05 (.09)	.16 (.10)	-.04 (.10)	-.25 (.14)	.03 (.09)	.01 (.10)
Pre-disposition	Exp(B)	1.15 **	.97	1.07	1.06	1.14 *	1.14 *
	b(s.e.)	.14 (.05)	-.03 (.05)	.06 (.06)	.06 (.07)	.13 (.06)	.13 (.06)
Family Support	Exp(B)	.88	1.00	.93	1.22	.90	.91
	b(s.e.)	-.13 (.14)	-.00 (.16)	-.07 (.17)	.20 (.21)	-.11 (.15)	-.09 (.16)
Friend Support	Exp(B)	1.37 *	1.28	.70 *	.74	1.44 *	1.38 +
	b(s.e.)	.32 (.16)	.24 (.17)	-.37 (.18)	-.30 (.23)	.37 (.17)	.32 (.18)
Commitment	Exp(B)	.96	.99	.91	.95	.98	.98
	b(s.e.)	.05 (.08)	-.01 (.09)	-.10 (.10)	-.06 (.13)	-.02 (.09)	-.02 (.09)
Commit. Dummy	Exp(B)	1.83	.30	.49	.39	2.85	3.21
	b(s.e.)	.60 (.99)	-1.21 (1.11)	-.72 (1.19)	-.95 (1.69)	1.05 (1.09)	1.19 (1.09)
Chi-Square(df)		36.74 (11)	48.33 (11)	67.98 (11)	21.82 (11)	53.81 (12)	55.76 (14)
-2 Log		159.48	144.78	121.60	78.41	142.41	140.45
Nagelkerke R <sup>2</sup>		.30	.39	.52	.28	.42	.43
Significance		.00	.00	.00	.03	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.



The results of the full model for sticky floors discrimination shows partial support for GST (See Column 6, Table 25). Although subjective strain was significant ( $p = .010$ ), which did not support GST when anger and depression were included, the significant effects of both subjective strain and objective strain were reduced with the addition of the negative affective states. This indicates that negative affective states mediate the effect of strain on theft. Both anger and depression were significant ( $p = .023$ ,  $p = .033$  respectively) predictors of intentions to steal for males. A unit difference in anger was associated with odds of over 4 times greater in intentions to steal, while a unit difference in depression was associated with odds of just over 6 times greater. This result was consistent with the prediction of GST.

*The glass escalator scenario.*

Objective strain as measured by glass escalator discrimination was significantly ( $p = .009$ ) associated with intentions to steal. This result supported hypothesis one (See Column 1, Table 26). A unit difference in objective strain was associated with odds of over 3 ½ times greater in intentions to steal. Impulsivity ( $p = .003$ ) and pre-disposition ( $p = .001$ ) were also positively and significantly associated with intentions to steal for males. A unit difference in impulsivity was associated with odds of 37% greater in intentions to steal, while a unit difference in pre-disposition was associated with odds of 21% greater in intentions to steal. These results were in the expected direction.

Objective strain as measured by glass escalator discrimination was also a significant ( $p = .000$ ) predictor of the subjective evaluation of that strain and was supportive of hypothesis two (See Column 2, Table 26). A unit difference in objective strain was associated with odds of almost 23 times greater in subjectivity. No control

variables were significant for this model. The model for the predictor variable explained 44% of the variation in subjective strain (Chi Square = 53.13,  $df = 11$ ,  $p = .000$ ).

Subjective strain as measured by glass escalator discrimination was a significant ( $p = .000$ ) and positive predictor of anger for males, which supported hypothesis three (column 3, Table 26). A unit difference in subjective strain was associated with odds of over 16 times greater in anger. No control variables were significant for this model.

Likewise, subjective strain as measured by the glass escalator discrimination was a significant ( $p = .001$ ) predictor of depression for males and also supported hypothesis three (column 4, Table 26). A unit difference in subjective strain was associated with odds of over 18 times greater in depression. No control variables were significant for this model.

Anger and depression were significantly ( $p = .095$ ,  $p = .062$  respectively) and positively associated with higher intentions to steal, which supported hypothesis four (See Column 5, Table 26). A unit difference in anger was associated with odds of over 2 1/3 times greater in intentions to steal, while a unit difference in depression for males was associated with odds of 5 1/2 times greater in intentions to steal.

Age, impulsivity, and pre-disposition were also significantly and positively related to intentions to steal. A unit difference in age (increase) was associated with odds of 16% less in intentions to steal, while a unit difference in impulsivity and pre-disposition was associated with odds of 36% and 22% respectively greater in intentions to steal. These results were in the expected direction.

The results of the full model for glass escalator discrimination (See Column 6,

Table 26. Logistic model of glass escalator vignette for males (n = 146)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	3.63 **	22.85 **				1.60
	b(s.e.)	1.29 (.49)	3.13 (.54)				.47 (.76)
Subjective Strain	Exp(B)			16.24 **	18.79 **		.65
	b(s.e.)			2.79 (.48)	2.90 (.87)		-.44 (.66)
Anger	Exp(B)					2.36 +	2.31
	b(s.e.)					.86 (.54)	.84 (.68)
Depression	Exp(B)					5.67 +	5.10 +
	b(s.e.)					1.69 (.93)	1.59 (.98)
Age	Exp(B)	.86	1.07	1.01	1.04	.85 +	.85
	b(s.e.)	-.15 (.10)	.07 (.51)	.01 (.07)	.04 (.08)	-.17 (.10)	-.16 (.10)
White	Exp(B)	.58	1.02	1.41	1.07	.59	.58
	b(s.e.)	-.54 (.45)	.02 (.51)	.34 (.51)	.07 (.95)	-.53 (.46)	-.55 (.46)
Married	Exp(B)	.25	1.13	.40	.30	.15	.17
	b(s.e.)	-1.39 (2.10)	.12 (1.34)	-.92 (1.39)	-1.19 (.20)	-1.90 (.27)	-1.79 (2.59)
Impulsivity	Exp(B)	1.37 **	1.08	.95	1.06	1.36 **	1.37 **
	b(s.e.)	.32 (.11)	.07 (.10)	-.05 (.11)	.06 (.18)	.31 (.11)	.31 (.11)
Peer Association	Exp(B)	1.02	1.17	.91	.80	1.01	1.03
	b(s.e.)	.02 (.10)	.16 (.11)	-.09 (.11)	-.22 (.17)	.01 (.10)	.03 (.10)
Pre-disposition	Exp(B)	1.21 **	1.01	1.01	.98	1.22 **	1.22 **
	b(s.e.)	.19 (.06)	.00 (.06)	.01 (.06)	-.02 (.08)	.20 (.06)	.20 (.06)
Family Support	Exp(B)	.85	.86	.98	1.25	.82	.82
	b(s.e.)	-.16 (.16)	-.15 (.17)	-.02 (.17)	.22 (.25)	-.20 (.17)	-.20 (.17)
Friend Support	Exp(B)	1.31	1.30	.93	.73	1.29	1.31
	b(s.e.)	.27 (.17)	.26 (.19)	-.07 (.18)	-.31 (.33)	.26 (.17)	.27 (.18)
Commitment	Exp(B)	1.05	.99	.97	.85	1.07	1.07
	b(s.e.)	.05 (.09)	-.01 (.09)	-.03 (.09)	-.17 (.17)	.06 (.09)	.07 (.09)
Commit. Dummy	Exp(B)	5.77 +	.38	.22	.26	6.70 +	7.07 +
	b(s.e.)	1.79 (1.10)	-.97 (1.20)	-1.49 (1.29)	-1.39 (1.97)	1.90 (1.09)	1.99 (1.09)
Chi-Square(df)		49.88 (11)	53.12 (11)	51.80 (11)	23.29 (11)	54.23 (12)	54.87 (14)
-2 Log		138.68	123.41	124.73	59.14	134.33	133.69
Nagelkerke R <sup>2</sup>		.40	.44	.43	.34	.43	.44
Significance		.00	.00	.00	.02	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

Table 26) are somewhat supportive of GST. The significant effect of the objective and subjective strains were mediated with the inclusion of the negative affective states, which was consistent with GST's prediction. Anger was not a significant predictor of intentions to steal for males, however, depression was significant ( $p = .089$ ). A unit difference in depression was associated with odds of over 5 times greater in intentions to steal. This is consistent with theoretical expectations in general, but one would predict anger rather than depression as having a more significant effect. As in the other models, impulsivity and pre-disposition were significant. With these results, GST gains at least partial support.

#### *Comparisons between Males and Females*

This section compares Z-scores between males and females by hypothesis for each vignette. The scores were calculated using betas and standard errors derived in the logistic regression analyses of that section.

##### *The sexual harassment scenario.*

For the sexual harassment vignette, z-scores for males and females indicated significant ( $z = -2.39$ ) gender differences with respect to objective strain and intentions to steal (See Column 1, Table 27). The effect of objective strains on theft was significantly weaker among females. Age and pre-disposition were also significantly different by gender as predictors of intentions to steal. There were also gender differences with in the predictors of subjective strain (hypothesis two). Both the effect of objective strain and race (See Column 2, Table 27) are significantly different. The effect of sexual harassment objective strains on subjective strains was significantly stronger for males. In addition, there was a significant ( $z = -3.10$ ) difference in the effect of subjective strain on anger

(See Columns 3 and 4, Table 27). Subjective strain having a much greater impact on anger for males. In terms of depression, the analysis indicates significant differences in the effect of family support on depression ( $z = 2.04$ ) between males and females.

For hypothesis five, impulsivity and pre-disposition had significantly different effects on intentions to steal by gender (See Column 5, Table 27). In the full model (See Column 6, Table 27) only impulsivity and pre-disposition were significant, having a greater effect on intentions to steal for males than females.

*The pay gap scenario.*

For the pay gap vignette, only hypothesis three dealing with the effect of subjective strain on anger, (See Column 3, Table 28) indicated significant ( $z = -2.57$ ) differences between males and females. Subjective strain has a significantly greater effect on anger for males than females. Males indicated for more likelihood to be angry. Also with hypothesis three, pre-disposition showed significant ( $z = 2.00$ ) differences between males and females. The effect of pre-disposition on intentions to steal was greater for females than for males.

*The glass ceiling scenario.*

With the glass ceiling vignette, objective strains showed no significant differences with hypothesis one and intentions to steal, but with the controls of impulsivity ( $z = -2.53$ ) and commitment ( $z = -1.99$ ) (See Column 1, Table 29). Impulsivity had a greater effect on intentions to steal for males, while commitment had a greater effect on intentions to steal for females. The more committed, the less likely to indicate intentions to steal. The final model echoed hypothesis one, and indicated significant differences

Table 27. Z-scores of sexual harassment vignette comparing males and females

	Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	-2.39 **	-2.21 *				.27
Subjective Strain			-3.10 **	-.61		.57
Anger					-.19	-.34
Depression					-1.94 +	-1.53
Age	-1.95 *	.91	-1.52	-1.68 +	-1.74 +	-1.74 +
White	.34	2.18 *	-.44	1.81	1.56	1.58
Married	.76	-.62	.47	1.06	.62	.81
Impulsivity	3.05 **	.86	-.35	-1.04	-2.76 **	-2.94 **
Peer Association	-.70	.14	.62	1.69 +	-.53	-.70
Pre-disposition	-1.98 *	.93	1.27	1.58	-2.12 *	-2.12*
Family Support	.93	-.13	.99	2.04 *	.67	.61
Friend Support	-.85	.75	-.47	-.77	-.43	-.43
Commitment	-.56	-.85	-.94	-1.11	-.70	-.44
Commit. Dummy	-1.15	-.14	-.51	.00	-1.41	-1.14

\*\*=p<.01; \*=p<.05; +=p<.10.

Table 28. Z-scores of pay gap vignette comparing males and females

	Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	-1.18	-1.05				.28
Subjective Strain			-2.57 **	-.60		.56
Anger					-1.49	-1.50
Depression					-1.02	-1.10
Age	-1.15	-.68	.74	-.87	-1.02	-1.15
White	1.48	-.81	-.48	.31	1.48	1.51
Married	1.44	-1.30	.67	.46	1.55	1.50
Impulsivity	-.79	.79	.51	.37	-1.23	-1.15
Peer Association	.00	.35	.70	1.11	-.53	.39
Pre-disposition	-1.25	-.94	2.00 *	1.77 +	-1.28	-1.41
Family Support	.40	-.51	.31	.21	.29	.29
Friend Support	-1.08	.81	-.36	.00	-1.03	-.98
Commitment	-.56	.00	-.91	.23	-.28	-.28
Commit. Dummy	-1.09	1.32	.09	.xx	-1.33	-1.23

\*\*p<.01; \*p<.05; +=p<.10.

between males and females with regards to commitment and impulsivity (See Column 6, Table 29).

*The sticky floors scenario.*

In the sticky floors vignette, hypothesis one, objective strains and intentions to steal, showed no significant differences. In terms of controls and hypothesis one, commitment ( $z = -2.26$ ) indicated significant differences between males and females, with high commitment having a greater effect on intentions to steal among females (See Column 1, Table 30). With objective strains and subjective strains and hypothesis two, marital status showed a significant difference ( $z = -2.29$ ) between married males and married females with being married having a greater effect on subjective strains among males (See Column 2, Table 30).

In addition, Z-scores indicated significant ( $z = -1.93$ ) differences between males and females with respect to race. Objective strains had a weaker effect on subjective strains among White females. In column 4 with hypothesis three (Table 30), both the commitment variable ( $z = 2.38$ ) and commitment dummy variable ( $z = 2.33$ ) showed significant differences between males and females.

Due to the dummy variable being significant, significant differences existed between those who worked and those who did not. With column 5 and hypothesis four, z-scores indicated significant ( $z = -2.05$ ) differences between males and females in terms of anger, impulsivity, and friend support, all of which indicated controls had a greater effect on intentions to steal for males.

*The glass escalator scenario.*

As column 1, hypothesis one, (Table 31) indicated, z-scores showed no significant



Table 29. Z-scores of glass ceiling vignette comparing males and females

	Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	-1.54	.00				-.98
Subjective Strain			-.07	.68		-1.06
Anger					-.42	.41
Depression					-.56	-.19
Age	-1.15	.47	-1.28	-.53	-.77	-.90
White	.76	-1.38	1.29	1.50	.70	.64
Married	.79	-1.06	.75	.32	-.72	.97
Impulsivity	-2.21 *	.66	1.68 +	-.16	1.54	-2.53 *
Peer Association	-.35	.58	1.34	1.01	-.44	-.53
Pre-disposition	-1.53	.14	.90	.05	-1.41	-1.54
Family Support	1.71 +	.54	.71	-.13	1.54	1.54
Friend Support	-1.49	.30	.12	-.13	-1.39	-1.68 +
Commitment	-2.03 *	-.15	.22	1.97 *	-2.12 *	-1.99 *
Commit. Dummy	-2.43 *	.39 .60	.60	2.59 **	-2.42 *	-1.78 +

\*\*=p<.01; \*=p<.05; +=p<.10.

Table 30. Z-scores of sticky floors vignette comparing males and females

	Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	-1.25	-.79				1.07
Subjective Strain			-1.70	-.10		-.67
Anger					-2.43 *	-2.05 *
Depression					-1.23	-1.43
Age	-.64	.97	-.68	-.62	-.51	-.51
White	.35	-.96	1.93 +	.71	.47	.40
Married	.11	-2.29 *	1.32	.26	-.10	-.01
Impulsivity	-1.56	.86	.44	1.56	-1.99 *	-2.15 *
Peer Association	-.44	-.20	.62	.72	-.25	-.08
Pre-disposition	-1.56	.14	.64	.77	-1.28	-1.28
Family Support	.90	-.03	.46	-.86	.78	.64
Friend Support	-1.85 +	-1.11	1.48	.45	-2.02 *	-1.66 +
Commitment	-2.26 *	-.74	.08	2.38 *	-1.58	-1.58
Commit. Dummy	-1.85 +	.78	-.36	2.33 *	-2.23 *	-2.34 *

\*\*=p<.01; \*=p<.05; +=p<.10.

differences for objective strain and intentions to steal, but did show significance differences between males and females in terms of race, impulsivity, pre-disposition, and commitment. Race and commitment had a greater effect on intentions to steal for females, while impulsivity and pre-disposition had a greater effect on intentions to steal for males. In column 2 and hypothesis two, Z-scores indicated significant differences between males and females ( $z = -2.21$ ) viewing objective strains subjectively.

While both were significant in the logistic regressions, objective strain as measured by the glass escalator had a greater effect on subjective strain for males. In terms of hypothesis three (See Column 4, Table 31), z-scores indicated significant ( $z = 2.40$ ) differences between males and females with the pre-disposition variable. Pre-disposition had a greater effect on depression for females.

Column 5 (Table 31), z-scores indicated significant differences between males and females in impulsivity, pre-disposition, friend support, and commitment. Impulsivity had a greater effect on intentions to steal among males, while both commitment and friend support had a greater effect on intentions to steal for females.

### *Section Summary*

In sum, the main patterns suggest there are significant gender differences, mainly divided between the categories of strain in terms of the negative emotionality and control variables. For example, there were significant gender differences with sexual harassment scenario and hypothesis one. Objective strain as measured by sexual harassment was a significant predictor of intentions to steal for women, but in an unexpected direction. Women were less likely to steal when faced with sexual harassment. This could be a result of women suggesting sexual harassment is not an egregious strain as predicted. In

Table 31. Z-scores of glass escalator vignette comparing males and females

	Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	-.99	-2.21 *				-.35
Subjective Strain			-.11	-.97		2.39 *
Anger					-.48	-1.34
Depression					-1.32	-1.20
Age	.77	-.01	.37	.67	.90	.86
White	2.03 *	-1.03	.33	.12	1.90 +	2.39 *
Married	.13	-.28	.59	.58	.28	.14
Impulsivity	-1.91 +	-1.47	-.66	-1.36	-1.62	-1.62
Peer Association	-.37	-.58	-.37	-.40	-.22	-.52
Pre-disposition	-2.30 *	-.78	1.28	2.40 *	-2.43 *	-1.77 +
Family Support	1.75	1.14	-.20	-.57	1.93 +	1.98 *
Friend Support	-2.16 *	-1.38	-.50	-.22	-2.07 *	-2.05 *
Commitment	-2.59 **	-.53	-.08	2.18 *	-2.53 *	-2.68 **
Commit. Dummy	-2.70 **	.05	1.11	2.12 *	-2.58 **	-1.38

\*\*=p<.01; \*=p<.05; +=p<.10.

terms of goal blockage, women were significantly less likely to steal when commitment to the workplace was high and friend support was high.

For males, impulsivity and pre-disposition were consistently significant predictors of intentions to steal for all vignettes except the pay gap. Indeed, the pay gap only showed one significant result. Additionally, males were significantly associated with anger in the sexual harassment, pay gap, and sticky floors vignettes. It is clear, then, that while there are no significant gender differences in objective strains and intentions to steal, males were affected to a far greater degree with the presence of anger, impulsivity, and pre-disposition associated with positive intentions to steal. Conversely, females were affected to a far greater degree by friend support and commitment to the workplace associated with negative intentions to steal. Interestingly, this may be an indication that males and females do not necessarily experience strain in the same way as suggested by Agnew and Broidy (1997). Another explanation may be that the effect of certain control variables act differently on the subjective evaluation of strains for males and females.

## EXPERIENCED DISCRIMINATION RESULTS

This section examines the results of the analysis using the data from the experienced discrimination part of the survey. The section will cover bivariate correlations as well as the analysis of the effect of the combined discrimination measure. Recall that this part of the analysis is comprised of only those respondents who indicated they work or have worked in the past. This created a sample size of 315. To be consistent with the vignette section, the negative emotions of frustration and anxiety were dropped from further analysis. In addition, only the combined discrimination measure is used. The

number of valid responses from those who had experienced discrimination or engaged in theft behaviors in the workplace is too small for splitting the data into separate discrimination types.

### *Bivariate Correlations for Combined Discrimination Measures*

The first set of results come from the bivariate correlations (See Table 32). Unsurprisingly, bivariate correlations showed high inter-correlations among the negative affective states and subjective strains for both men and women.

Unlike the vignette section for hypothesis one, where the bivariate correlations indicated there was no significant correlation between overall combined objective strain measures and intentions to steal, here they were significantly related for both males ( $r = .36, p = .000$ ) and females ( $r = .26, p = .000$ ). The result is particularly interesting as it may say something about the magnitude of the strain effect and the difference between having experienced the strain versus having only to imagine how one might respond to the strain. In reference to hypotheses two and three, significant correlations existed for both males and females for objective strains and subjective strains, and subjective strains and all of the negative affective states. These results are also substantially different than those seen with the vignette correlations (See Table 32). There were numerous other significant correlations. These, however, were consistent with the vignette analyses as well as what was predicted for hypotheses four and five.

### *Combined Discrimination Measures*

The following set of analyses utilized logistic regression to account for the highly skewed nature of the data. The analyses were conducted for females and males separately to examine any potential differences between the two groups.

#### *Females.*

For hypothesis one, the analysis indicates that the combined objective strain discrimination measure was not a significant predictor of theft (See Column 1, Table 33). Hypothesis 1, thus, is not supported. In terms of controls, race ( $p = .044$ ), peer association ( $p = .003$ ), and pre-disposition ( $p = .075$ ) were significant predictors of theft. White respondents were associated with odds almost two times greater in theft. Also, females with positive peer associations were associated with odds of 20% less of having committed theft. The model for the predictor variable was significant ( $p = .023$ ) and explains 4% of the variance.

In relation to hypothesis two, objective strain was not a significant predictor of subjective strain for females. Thus hypothesis two was not supported. None of the control variables were significant predictors of subjective strain.

In terms of hypothesis three, subjective strains were significantly associated with anger ( $p = .027$ ) and depression ( $p = .001$ ) for females (See Columns 3 and 4, Table 33). Subjective strains were associated with odds of 74% greater in anger for females. The model explained 95% of the variation in anger (Chi Square =170.24,  $df = 10$ ,  $p = .000$ ). Subjective strains were also associated with odds of 32% greater in depression. Only marital status (Married,  $p = .087$ ) and impulsivity ( $p = .089$ ) in the subjective strain

Table 32. Bivariate correlations of experienced discrimination and theft for males (bottom, n = 130) and females (top, n = 185)

Females (top) Males (bottom)	Theft	Obj. Strain	Subj. Strain	Anger	Depr.	Age	White	Married	Imp.	Peer Assoc.	Pre- Dispo.	Fam. Supp.	Frnd. Supp.	Commit.
1. Theft	1.00	.26**	.16*	.15*	.17*	-.08	.05	-.05	.15*	-.34**	.20**	-.01	.11	-.05
2. Obj. Strain	.36**	1.00	.68**	.66**	.63**	.35**	.20	.29**	-.01	-.07	.15*	.17*	.12	-.12
3. Subj. Strain	.20*	.69**	1.00	.98**	.95**	.24**	.16*	.16*	-.08	-.08	.14+	.12	.07	-.08
4. Anger	.24**	.60**	.91**	1.00	.96**	.21**	.15*	.14	-.11	-.09	.13+	.13+	.06	-.10
5. Depr.	.21*	.59**	.94**	.98**	1.00	.17*	.19*	.09	-.08	-.08	.12+	.11	.07	-.08
6. Age	.07	.05	.12	.15+	.13	1.00	.13+	.52**	-.06	.24**	-.07	.07	.04	-.05
7. White	-.05	.58	-.02	-.09	-.07	-.02	1.00	.03	.10	.05	.08	.03	-.07	.08
8. Married	.01	-.03	.03	.11	.08	.56**	-.04	1.00	-.08	.23**	-.06	.05	-.11	-.08
9. Imp.	.10	.11	.04	.03	.04	-.00	.16	-.01	1.00	-.32**	.09	.06	.10	-.03
10. Peer Assoc.	-.11	-.27**	-.15	-.09	-.11	.14	-.01	-.02	-.49**	1.00	-.23**	-.13	-.21**	.19**
11. Pre-Dispo.	.21	.05	-.03	-.01	-.00	-.04	-.10	.10	.11	-.20*	1.00	.00	.04	-.07
12. Fam. Supp.	.06	-.10	-.19*	-.17	-.17+	.03	.15	-.04	.21*	-.22*	-.02	1.00	.47**	-.08
13. Frnd. Supp.	.09	.07	.01	.03	.02	.09	-.06	.07	.10	-.28**	-.13	.50**	1.00	.82
14. Commit.	-.18*	-.09	-.14	-.15+	-.14	-.05	.06	-.14	.00	.14	.06	-.12	-.21*	1.00
Female														
Mean	5.41	14.63	15.61	5.45	4.29	22.23	.50	1.13	8.22	14.38	6.69	4.77	4.83	10.54
St. Dev.	2.00	3.84	21.41	7.23	6.04	5.91	.50	.34	2.44	2.70	3.22	1.98	1.66	3.36
Male														
Mean	5.92	13.48	8.24	2.73	2.54	22.02	.65	1.05	8.64	13.76	7.52	4.81	5.24	9.38
St. Dev.	2.48	2.62	14.51	5.13	4.74	4.30	.48	.23	2.59	2.74	3.33	1.62	1.62	3.56

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.



depression regression were significant. The model explained 87% of the variation in depression (Chi Square = 128.37,  $df = 10$ ,  $p = .000$ ). Both model results were in the expected direction. These last two figures are strong indicators that subjective strains predict both anger and depression in females.

When anger and depression were regressed onto theft (See Column 5, Table 33), neither were significant predictors of theft and hypothesis four was not supported. Only race ( $p = .056$ ), peer association ( $p = .004$ ), and pre-disposition ( $p = .069$ ) indicated significant association. Females with positive peer associations were associated with odds of 20% less of having committed theft. The model explained 22% of the variation in theft (Chi Square = 32.99,  $df = 11$ ,  $p = .001$ ).

For the full model (See Column 6, Table 33), neither objective nor subjective strains were significant predictors of theft, which did not support hypothesis five. Again, only race ( $p = .057$ ), peer associations ( $p = .003$ ), and pre-disposition ( $p = .067$ ) were significant predictors of theft. Females who indicated positive peer associations were 20% less likely to engage in theft. Females who indicated higher pre-disposition were 11% more likely to engage in theft. The model explained 23% of the variation in theft (Chi Square = 34.79,  $df = 13$ ,  $p = .001$ ).

#### *Males.*

For hypothesis one, objective strain was a significant ( $p = .001$ ), predictor of theft and was associated with odds of 54% greater in theft (See Column 1, Table 34). Hypothesis one, then, was supported for males. With the controls, pre-disposition ( $p = .017$ ) and commitment ( $p = .053$ ) were significant predictors of theft. Pre-disposition was associated with odds of 18% greater in theft and commitment to the workplace was

Table 33. Logistic model of all combined experienced discrimination for females (n = 185)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	1.08	.95				1.01
	b(s.e.)	.08 (.05)	-.06 (.05)				.01 (.07)
Subjective Strain	Exp(B)			1.74 *	1.32 **		1.07
	b(s.e.)			.55 (.25)	.28 (.08)		.06 (.05)
Anger	Exp(B)					.99	.84
	b(s.e.)					-.01 (.08)	-.17 (.14)
Depression	Exp(B)					1.09	1.07
	b(s.e.)					.08 (.10)	.07 (.10)
Age	Exp(B)	.97	.99	1.17	1.04	.98	.97
	b(s.e.)	-.03 (.03)	-.01 (.04)	.16 (.25)	.03 (.07)	-.03 (.03)	-.03 (.04)
White	Exp(B)	1.97 *	.63	1.26	2.80	1.91 +	1.93 +
	b(s.e.)	.68 (.34)	-.47 (.39)	.24 (.24)	.99 (1.29)	.65 (.34)	.66 (.35)
Married	Exp(B)	1.26	1.15	.03	.05 +	1.43	1.32
	b(s.e.)	.23 (.58)	.14 (.68)	-3.59 (8.29)	-2.99 (1.79)	.36 (.57)	.28 (.60)
Impulsivity	Exp(B)	1.01	1.01	.82	1.56 +	1.02	1.01
	b(s.e.)	.01 (.07)	.02 (.08)	-.19 (.37)	.44 (.32)	.02 (.07)	.01 (.07)
Peer Association	Exp(B)	.80 **	1.08	1.48	1.56	.81 **	.80 **
	b(s.e.)	-.29 (.07)	.07 (.08)	.39 (.45)	.44 (.26)	-.22 (.08)	-.22 (.08)
Pre-disposition	Exp(B)	1.10 +	1.12 +	.93	1.14	1.10 +	1.11 +
	b(s.e.)	.10 (.05)	.12 (.07)	-.07 (.35)	.13 (.17)	.10 (.06)	.10 (.06)
Family Support	Exp(B)	.96	1.09	.82	1.88	.96	.96
	b(s.e.)	-.05 (.09)	.08 (.11)	-.19 (.45)	.63 (.45)	-.05 (.09)	-.04 (.09)
Friend Support	Exp(B)	1.04	.89	1.09	1.03	1.03	1.03
	b(s.e.)	.04 (.11)	-.12 (.13)	.09 (.55)	.03 (.37)	.03 (.12)	.03 (.12)
Commitment	Exp(B)	.98	.99	.91	.73	.98	.98
	b(s.e.)	-.02 (.05)	-.01 (.06)	-.09 (.33)	-.31 (.18)	-.02 (.05)	-.02 (.05)
Chi-Square(df)		30.05 (10)	7.52 (10)	170.24 (10)	128.37 (10)	32.99 (11)	34.79 (13)
-2 Log		225.20	183.04	14.91	28.90	222.25	220.46
Nagelkerke R <sup>2</sup>		.20	.06	.95	.87	.22	.23
Significance		.00	.68	.00	.00	.00	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

associated with odds of 11% less in theft (column 1, Table 34). Both results were in the expected direction and consistent with predictions.

The analysis dealing with the association between subjective strain and objective strain shows mixed support for hypothesis two (See Column 2, Table 34). The combined objective strain was a significant predictor of subjective strain ( $p = .020$ ), but in an unexpected direction. Objective strain was associated with odds of 19% less in subjective strain for males. This finding suggests that when using the combined measure, the relationship between strains is murky at best. It further illustrates the need to separate the strains into different measures. None of the control variables were significant predictors of subjective strain.

In terms of hypothesis three, subjective strain was significantly ( $p = .001$ ) associated with anger. The results supported hypothesis three (See Column 3, Table 34). Subjective strain was associated with odds of 27% higher in anger with no controls being significant. Subjective strain was also a significant predictor of depression ( $p = .015$ ) and supported hypothesis three (See Column 4, Table 34). Subjective strain was associated with odds of 31% greater in depression for males. No controls were significant for this model.

Neither anger nor depression was a significant predictor of theft (See Column 5, Table 34), which was not supportive of hypothesis four. Only pre-disposition ( $p = .031$ ) was a significant predictor of theft for this model. One unit change in pre-disposition was associated with odds of 15% greater likelihood of engaging in theft.

For the full model (See Column 6, Table 34) objective strain was a significant ( $p = .007$ ) predictor of theft and was associated with odds of 72% greater in theft. These

Table 34. Logistic model of all combined experienced discrimination for males (n = 130)

		Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	Exp(B)	1.54 **	.81 *				1.72 **
	b(s.e.)	.43 (.13)	-.03 (.09)				.55 (.20)
Subjective Strain	Exp(B)			1.27 **	1.31 *		.98
	b(s.e.)			.24 (.07)	.27 (.11)		-.02 (.05)
Anger	Exp(B)					2.63	1.92
	b(s.e.)					.97 (.64)	.65 (.54)
Depression	Exp(B)					.40	.50
	b(s.e.)					-.93 (.65)	-.69 (.56)
Age	Exp(B)	1.13	1.03	1.04	1.04	1.12	1.12
	b(s.e.)	.12 (.08)	.03 (.07)	.10 (.18)	.04 (.15)	.12 (.07)	.11 (.08)
White	Exp(B)	.73	.90	.22	1.13	.93	.71
	b(s.e.)	-.31 (.44)	-.11 (.55)	-1.49 (1.19)	.12 (1.29)	-.08 (.43)	-.34 (.47)
Married	Exp(B)	.37	.14	11.95	8.95	.32	.32
	b(s.e.)	-.99 (1.29)	-1.98 (1.19)	2.49 (2.29)	2.19 (2.49)	-1.13 (1.29)	-1.09 (1.29)
Impulsivity	Exp(B)	1.05	1.03	.89	.54	1.03	1.04
	b(s.e.)	.05 (.09)	.03 (.11)	-.11 (.33)	-.62 (.45)	.03 (.09)	.04 (.09)
Peer Association	Exp(B)	1.14	1.10	1.07	.74	1.03	1.11
	b(s.e.)	.13 (.10)	.10 (.11)	.06 (.22)	-.30 (.29)	.03 (.09)	.11 (.10)
Pre-disposition	Exp(B)	1.18 *	1.12	1.02	1.16	1.15 *	1.17 *
	b(s.e.)	.16 (.07)	.12 (.09)	.02 (.05)	.15 (.18)	.14 (.07)	.16 (.07)
Family Support	Exp(B)	1.08	1.38	.94	1.30	1.07	1.06
	b(s.e.)	.07 (.15)	.32 (.22)	-.07 (.52)	.26 (.57)	.07 (.15)	.06 (.16)
Friend Support	Exp(B)	1.05	1.14	1.20	1.56	1.00	1.03
	b(s.e.)	.04 (.15)	.13 (.20)	.18 (.50)	.45 (.52)	.01 (.15)	.03 (.16)
Commitment	Exp(B)	.89 +	1.02	1.15	1.07	.91	.90 +
	b(s.e.)	-.11 (.06)	.02 (.07)	.14 (.20)	.07 (.22)	-.09 (.06)	-.11 (.06)
Chi-Square(df)		29.32 (10)	17.35 (10)	68.42 (10)	50.96 (10)	22.68 (11)	34.59 (13)
-2 Log		148.93	107.01	32.42	24.41	155.57	143.65
Nagelkerke R <sup>2</sup>		.27	.20	.76	.74	.22	.31
Significance		.00	.07	.00	.00	.02	.00

\*\*=p<.01; \*=p<.05; +=p<.10. Two Tailed.

results were supportive of hypothesis five, but not GST in general. Pre-disposition ( $p = .025$ ) was associated with odds of 17% greater in theft while commitment to the workplace ( $p = .061$ ) was associated with odds of 11% less in theft (See Column 6, Table 34). Both were consistent with predictions and in the expected direction.

### *Comparisons Between Males and Females*

Z-scores were calculated for combined discrimination regressions for males and females to examine possible differences between the two groups (Table 35). For Objective strains effect on theft (See Column 1, Table 35), the Z-scores showed significant differences between males and females ( $z = -2.51$ ). For males objective strain had a significantly greater effect on theft than for females. In addition, there were significant differences in regards to peer association ( $z = -3.44$ ), with positive peer associations having significantly less effect on the likelihood of engaging in theft for females. There were no significant differences between males and females for the role of objective strains on subjective strains or the role of subjective strains in explaining anger and depression (See Columns 2, 3, and 4, Table 35). There were no significant differences between the effects of anger and depression on theft by gender (See Column 5, Table 35), which was consistent with the results from the vignette section. Age ( $z = -1.97$ ) and peer association ( $z = -2.08$ ) were significantly different, however.

The overall model (See Column 6, Table 35) also showed several significant differences between males and females. The effect of objective strain ( $z = -2.55$ ) on the likelihood of theft for males is stronger. In addition, peer association showed significant differences ( $z = -2.58$ ) between males and females. Peer association has a stronger effect

Table 35. Z-scores of combined experienced discrimination comparing males and females

	Theft	Sub. Strain	Anger	Depression	Theft	Theft
Objective Strain	-2.51 *	-.29				-2.55 *
Subjective Strain			1.19	.07		1.13
Anger					-1.52	-1.47
Depression					1.54	1.34
Age	-1.76 +	-.50	-.19	-.06	-1.97 *	-1.57
White	1.78 +	-.53	.65	.48	1.33	1.71 +
Married	.86	1.54	-.71	-1.69 +	1.03	.96
Impulsivity	-.35	-.07	-.16	1.92 +	-.09	-.26
Peer Association	-3.44 **	-.22	.66	1.90 +	-2.08 *	-2.58 *
Pre-disposition	-.70	.00	-.24	-.08	-.43	-.65
Family Support	-.51	-.98	-.17	.51	-.69	-.54
Friend Support	.00	-1.05	-.12	-.66	.10	.00
Commitment	1.15	-.33	-.60	-1.34	.90	1.15

\*\*=p<.01; \*=p<.05; +=p<.10.

on theft for males than females. This last result is not consistent with GST as negative affective states should mediate the effect of objective strain.

## CHAPTER SUMMARY

Overall, this chapter examined the data in terms of the five hypotheses derived from the four research questions. According to GST, deviant behavior is most likely to occur when the presence of strain is viewed subjectively, leading to a negative affective state. As indicated by the tables in this section, objective strain was viewed subjectively by both males and females almost exclusively, though in most cases objective strain was not significantly associated with intentions to steal or actual theft in the case of experiential data. GST then states theft behaviors would most likely present when strains are accompanied by a negative affective state.

While this was not always the case, it was surprising that the effect was greater for males and for depression. In general, predictions would favor the effect being greater for anger with males and depression with females. While consistent with theory and hypothesis three, it was not fully anticipated that the effect of subjective strain on depression would be as strong for males. This result may indicate direction for further research on males and discrimination.

As noted in some studies (See Brezina 1996; Mazerolle and Piquero 1997; Brezina 1998), the effects of objective strains on the dependent variable should be reduced or eliminated with the addition of negative effective states. While this was often the case, it was also the case that the negative affective states themselves were not significant predictors of intentions to steal or actual theft.

In terms of using separate and combined measures, it was clear that while the combined measures of the vignette and experiential sections produced similar results, the separation of the discrimination types added valuable insight into individual differences. Indeed, either measure alone for this study would produce consistent results, but using separate measure adds an element of reliability and provides a more complete picture.

In sum, the outcomes of the vignette and experiential groups for the combined measures were very similar in terms of those measures that were significant predictors. There were differences, however, as males were just slightly more inclined to indicate significant results with the vignette section and the experiential section. This may indicate males who have experienced discrimination found it to be higher in magnitude than those who merely perceived it. In addition, males showed similar significant results in both sections. This may be due to control variables having similar effects on the subjective evaluation of strains, and hence the similar negative reaction to strain.



## CHAPTER VI

### CONCLUSIONS

Traditional strain theories, as posed by Merton (1938), Cohen (1955), or Cloward and Ohlin (1960), and the research derived from them, have ignored gender discrimination as a factor explaining workplace crime. In fact, crime by women has largely been ignored in mainstream criminology. Feminist criminologists argue it cannot be explained by theories developed to explain crime by males (Daly 1989). Agnew's General Strain Theory, however, provides the basis for potentially filling this gap in literature. Prior research has suggested that further research utilize the tenets of GST to examine workplace crime. Langton, Leeper-Piquero and Hollinger (2006:46) noted: "[future studies should include variables] such as anger or depression as well as a lack of control for social learning and self-efficacy measures. Future research should attempt to collect strain measures that are more specific to the workplace and the resultant criminal activity."

In addition to largely ignoring females, prior research in this area has largely ignored differences between males and females in analyses, the role of emotions other than anger and depression, and the separation of strain into various types. In addition, prior research generally used either perceptual (vignette) data or experiential data, but not both. Recognizing that existing research has neglected the exploration of whether GST can effectively be applied to gender discrimination and workplace crime, this research attempted to fill those voids. The research questions, therefore, were: (1) to what degree is gender discrimination perceived as strain, (2) to what degree does this strain lead to

anger, frustration, or depression, anxiety, (3) to what degree does the perceived strain/negative affective state contribute to theft by employees, and (4) to what degree do males and females differ on significant items and differ on perceived and actual discrimination?

To provide an answer to the research questions, the study tested five major hypotheses of the theory on a sample of college students from a mid-Atlantic university. While the study found support for many of the theory's main tenets, questions arose as to the inter-correlation of negative emotion, objective strains, and subjective strains as well as differences between combined and separate measures. These results add to existing strain/gender/crime literature, particularly in terms of methods and variable construction.

#### *Hypotheses and Research Questions*

*Hypothesis 1: The objective strains resulting from the sexual harassment, the "Pay Gap", the "Glass Ceiling", "Sticky Floors", and the "Glass Escalator" experienced in the workplace, will be positively and significantly related to theft in the workplace.*

In hypothesis one, the focus was on the relationship between objective strains and intentions to steal/theft. It is interesting that Froggio and Agnew (2007) noted that although subjective strains are better predictors than objective strains there is some overlap between them. Objective strains, therefore, *may* lead directly to employee malfeasance. This hypotheses received partial support. For the combined vignette discrimination measure, objective strain was not a significant predictor of intention to

steal for males or females, which did not support hypothesis one. For the experiential data, objective strain was a significant predictor of theft for males, but not for females. This indicates males who have experienced discrimination are more likely to respond with theft than females.

As for the control variables, the type of data, whether vignette or experienced, effected which were significantly related with the dependent variable. For example, in the vignette data, age, impulsivity, and commitment to the workplace were significant predictors of intentions to steal for females. With the experienced data however race (white) and peer association were significant predictors of theft for females. For males, impulsivity and pre-disposition were significant predictors of intentions to steal with the vignette data, while for the experienced data, pre-disposition and commitment to the workplace were significant predictors of theft for males. Clearly, there are differences in the effects of the control variables by gender given different types of data.

In terms of the separate discrimination analyses, support for hypothesis one was also mixed. Objective strain from glass escalator discrimination was the only one significantly and positively related to intentions to steal for females. The objective strain from sexual harassment was also significant for females but it was negatively related to intentions to steal. In terms of sexual harassment, certainly a problem more likely faced by females, being significant indicated it is not only a cause of strain but also may be seen as a personal affront (Broidy and Agnew 1997). Significant associations with the objective strain measure from the three goal blockage vignettes were found for males. Essentially, the scenario dealing with presence of noxious stimuli (sexual harassment) had a greater effect on females and the scenarios dealing with goal blockage (glass

ceiling, sticky floors, glass escalator) had a greater effect on males. This result is not too surprising as females tend to view discrimination as having a greater impact on workplace issues (Wood and Lindorff 2001) and males tend to have higher expectations for promotion and advancement (Gasser, Flint, and Tan 2000). In addition, current psychological research (e.g. Gasser et al. 2000; Wood and Lindorff 2001) suggested males' expectations for achieving workplace goals may be much higher than those for females and therefore lead to additional strain.

In terms of the control variables and hypothesis one, impulsivity and pre-disposition were significant predictors of intentions to steal for males in each of the five vignettes. For females, the results were less consistent in terms of how the control variables worked. Age was a significant predictor of intentions to steal in two vignettes, while impulsivity was significant in three vignettes. Race was significant on one vignette, while commitment was significant in four vignettes. For females specifically, older, White, and those more committed to the workplace were less likely to report intentions to steal.

The results for hypothesis one go a long way to answering the first research question 'to what degree is gender discrimination perceived as strain.' As noted by Broidy and Agnew (1997:279), "males tend to be focused on material success and extrinsic achievements, whereas females are more concerned with the establishment and maintenance of close relationships." This was born out at least partially in this study. In addition, as a contribution to existing literature, the results of hypothesis one demonstrate the need, as expressed by Agnew (2001), to separate the types of discrimination rather than using a combined measure for objective strain as different strains will have variable

effects on the dependent variable.

*Hypothesis 2 - objective strains will be positively and significantly related to subjective strains.*

Hypothesis two tested the relationship between objective strains and the subjective evaluation of those strains. This was an important hypothesis for Agnew. He felt negative affective states were derived from subjective strains and that objective strains are predictors of subjective strains. For hypothesis two, the combined objective strain measure used in the vignette data was a significant predictor of subjective strain for both males and females. In terms of the experienced data, the data suffered from possible issues of multicollinearity and interaction as indicated by the bivariate correlations and condition indices. As the frustration and anxiety variables had already been removed, the subjective strain variable was kept. With the experiential combined data, objective strain was not a significant predictor of subjective strain for females. For males, objective strain significantly but negatively predicted subjective strain. This may be an indication that the lines between objective and subjective strains are blurred for those who have experienced discrimination.

In terms of control variables used in the analysis of the vignette data, none were significant predictors of subjective strain for males. For females, age, race, and marital status were significant predictors of subjective strain indicating older, married and White respondents are significantly more likely to report subjective strain. While this is not conventional, it may be consistent with the sample. Those who are older, White, and married may have more time in the workforce and hence more experience with discrimination than a younger person with fewer job experiences. With the experiential

data, none of the control variables were significant for males. For females, only pre-disposition was a significant predictor of subjective strain.

In terms of the separate discrimination measures and hypothesis two, objective strains were significant predictors of subjective strains for every vignette for both males and females. The data revealed an interesting characteristic, however. Given that the scenarios were written with females in mind, but in neutral language to be inclusive of males, it was interesting that males indicated a greater amount of perceived subjective strain through higher odds ratios. This could be a clear indication of the effect of the control variables on the subjective evaluation of strains and hence, the corresponding negative affect.

For the control variables associated with hypothesis two and separate discrimination measures, the results were mixed and unremarkable. For males, three control variables were significantly related to subjective strain. For females, three controls across five vignettes were significant. Interestingly, for both males and females peer associations were significant and negatively related to subjective strain. For females, this could be the result of peers providing a positive outlet for strain, or for both males and females, the separation of objectivity and subjectivity may be little if any.

The results contribute to the literature by lending tentative support to Broidy and Agnew's (1997) contention that males tend to be focused on material achievements and the denial of those achievements in the workplace has a significant impact on subjective evaluation of strains. Overall, the results indicate gender discrimination is certainly perceived not only as sources of strain but also subjectively as a personal affront (Morgan 2006). The differential effect of the controls on the subjective evaluation of strains for

males and females should be explored further.

*Hypothesis 3: subjective strain will be positively and significantly related to the negative emotional states of anger, frustration, depression, and anxiety.*

Hypothesis three explored the second research question. Remember that as a consequence of the inter-correlation between anger and frustration and depression and anxiety, frustration and anxiety were removed from the analyses. Only anger and depression were tested. While testing the other emotional states was a goal of this project, the high correlation between these variables may explain why others have not previously tested for their effects. The combined subjective strain measure was significantly and positively related to anger in the vignette data for both females and males. In terms of depression, the combined subjective strain measures was significant predictor of depression for males, but not for females. The cutoff used for the dichotomization, however, was lowered to 52% to account for abnormally high standard errors due to low cell counts. Neither model was significant.

The combined discrimination measures in the experiential data, for both males and females, were significantly associated with anger and depression and at the same odds ratios. This suggests in practice, males and females respond similarly to subjective strains, but again this was a combined measure and prone to similar results. Males showed model variances of 76% and 74% for anger and depression, while for females model variances were a staggering 95% and 87% for anger and depression respectively.

The analysis of hypothesis three using the vignette and experiential data produced similar results. This offers some support for Agnew's contention about negative emotions

stemming from subjective strains, though the direct link between negative emotions and objective strains was not tested.

In terms of control variables and hypothesis three, there were differences in which controls were significant predictors of anger and depression for males and females. For males with the combined discrimination measures in the vignette data, peer associations, pre-disposition, and friend support were all significantly associated with anger. With the experiential combined discrimination measure none of the controls were significant. For females and the combined discrimination measure in the vignette data, being single was significantly associated with depression, while pre-disposition was significantly associated with anger and depression. For females and the combined discrimination measure in the experiential data, being single and impulsivity were significantly associated with depression. The different controls for vignette and experiential measures, as well as the controls being significantly associated with anger or depression, suggest there are gender differences in the driving forces behind the significance of the negative affective states.

In terms of the separate measures of discrimination, hypothesis three was supported with the negative states of anger and depression for both males and females for each vignette with one exception. The sexual harassment measure was not significantly predictive of depression for males. As with the combined measure, since the vignette discrimination measures produced similar significant results for both males and females, the notion of males and females experiencing strain similarly is supported. Somewhat unexpectedly, however, the subjective strains of some of the vignettes as they related to



depression affected males to a much greater degree than females, as with the glass escalator scenario. These interesting results warrant some further discussion.

For the separate measures and hypothesis three, the results were mixed but for two distinct clusters. For males, age was a significant predictor in one vignette, race a significant predictor in another, and peer associations significant in four vignettes. For females, pre-disposition was a significant predictor of both anger and depression in four vignettes, while age, race, impulsivity, and commitment were each significant in one. Not surprisingly, therefore, the controls that were significant predictors of either anger or depression differed by gender and discrimination type.

The results for hypothesis three are consistent with the contention of GST literature that females and males differ on the negative emotion expressed given the same strain (Brezina 1996; Broidy and Agnew 1997; Mazerolle and Piquero 1997; Mazerolle and Piquero 1998; Broidy 2001; Hay 2003; Leeper-Piquero and Sealock 2004; Jang and Johnson 2005) – in this case gender discrimination. Clearly, the different forms of discrimination evoke significant emotional responses, but in varying degrees. The results for hypothesis three lend support to Broidy and Agnew's (1997) contention that males tend to externalize their anger while females turn it inward; however, this is dependent on the type of discrimination being examined. Males were not only many times more likely to have the subjective strain of sexual harassment result in anger, but also fifteen times more likely to have the subjective strain of the glass escalator result in anger. This result is somewhat contrary to Broidy's (2001) findings that goal blockage was negatively related to anger. Likewise, females were associated with significant odds ratios for depression in the sexual harassment scenario associated with significant odds ratios for

depression in the glass escalator scenario. This illustrates that females may be more similar to males than predicted in terms of the effects of goal blockage. Also in terms of Broidy's (2001) findings, the differences between males and females may lay in what drives the reaction and emotion, i.e. control variables.

Overall, hypothesis three is supported and indicates GST is still appropriate for examining the role of strain and gender discrimination. Indeed, strain/gender discrimination literature is enhanced through this study by showing how separate forms of gender discrimination can influence males and females differently and how those forms affect anger and depression. It is unclear, however due to the inter-correlation effects, whether anxiety or frustration have a significant impact on deviant behavior. It may be that these two emotions are too closely related to anger and depression to ever examine.

The third research question – to what degree does strain/negative emotion contribute to intentions to steal/theft by employees - was addressed by hypotheses four and five.

*Hypothesis 4: negative emotional states will be positively and significantly related to theft by employees.*

Hypothesis four predicted that negative affective states would be positively and significantly related to intentions to steal/theft by employees. The combined measures produced near identical results for both the vignette and experiential data. Neither anger nor depression was a significant predictor of theft for males or females in either type of data, with one exception. Depression was a significant predictor of theft for males with the combined measure in the vignette data. Hence, hypothesis four is largely rejected.

Similar to other results in this study, the models for males in the combined vignettes explained far more (e.g., 30% vs. 19%) of the overall variance than the models for females, however this was largely a result of the effects of the control variables. For the experiential data, the model variance was not different. The results are of importance, however, as there is some overlap between objective and subjective strains (Froggio and Agnew 2007). As in other studies (e.g., Botchkovar et al. 2009), anger and depression were not significant predictors of theft for males or females with the experiential data.

Looking solely at the combined measures would suggest negative affective states resulting from discrimination do not lead to theft, but the examination of the results for the separate discrimination measures suggest this would be a partially incorrect assumption. In reference to the separate discrimination measures in the vignette data, anger had little mediating effect on crime for females. Indeed, anger was not significantly associated with employee intentions to steal for four of the separate discrimination measures for females. The only exception being the pay gap scenario. Conversely, anger *was* significantly associated with intentions to steal for males in four scenarios, the exception being sexual harassment. Broidy and Agnew (1997) would suggest this is due to males being driven by material success. Wood and Lindorff (2001) and Gasser et al. (2000) both offer an explanation. These authors, from business psychology, suggest that due to socialization, males have higher expectations in terms of promotion and pay. This may mean that males are more affected by perceived harm and injury when confronted by discrimination.

In addition, since gender discrimination in the workplace is primarily an issue faced by females, it is interesting that depression, along with anger, for males was consistently

positive and significantly associated with high intentions to steal. For females, depression was only significant in the pay gap scenario. It is possible that males may find these behaviors more egregious when they happen to them. It is equally possible that females, as suggested by Broidy and Agnew (1997), may simply engage in self-directed coping mechanisms, like drugs abuse or eating disorders.

The results for depression in the vignette section for this study mimicked those found in others (e.g., Mazerolle et al. 2000; Howerton 2005) in that it had a greater influence on employee intentions to steal for males than originally predicted by Agnew. This is contrary to some studies (Broidy 2001; Leeper-Piquero and Sealock 2004) which found that females report higher levels of depression than males irrespective of levels of anger. Males indicated significantly greater odds of depression being associated with intentions to steal for the presence of negative stimuli (sexual harassment scenario) and five times greater for goal blockage (sticky floors and glass escalator scenarios). Howerton (2005) also noted that emotion-focused coping strategies increased depression for males but not for females. Implied here is the notion that future loss of opportunities may lead to depression for males (Rice 2006).

In terms of control variables for hypothesis four, the results were mixed for the combined measures. In the combined discrimination measures, impulsivity and pre-disposition were significant predictors of intentions to steal for males in the vignette data and pre-disposition was a significant predictor of theft for males in the experiential data. Age and impulsivity were significant predictors of intentions to steal for females in the vignette combined measure, while pre-disposition and race were significant predictors of theft for females in the experiential data. As has been the consistent pattern, impulsivity

and pre-disposition have had the greatest effect on decisions to steal for males, while pre-disposition and demographic factors have had the greatest effect on decisions to steal for females.

For the control variables, in the analysis of the separate measures, there were distinct clusters as in hypothesis one. Impulsivity and pre-disposition were significant predictors of intentions to steal for males in all five vignettes. For females, impulsivity and commitment were significant predictors of intentions to steal for three of the vignettes. Females also had race and age as significant controls.

Taken as a whole, it seems counterintuitive to suggest males are affected to a greater degree than females when being sexually harassed, but socialization of males and females into gender roles may account for this difference. Eitle (2002) found a similar result, noting that “day-to-day” discrimination for females did not lead to crime.

*Hypothesis Five: the effects of subjective strains, objective strains, and negative emotional states will remain when controlling for low social control (commitment), delinquent peer association (differential association), social support, self-Control (impulsivity), and past criminal history (pre-disposition).*

As noted throughout the analysis, there have been mixed results in terms of whether subjective strains, objective strains and negative affective states are significant predictors of intentions to steal. Those that have been significant, however, have been so even after adding in the controls. This supports hypothesis five. For example, objective strains were significant predictors of intentions to steal for males and the glass ceiling, sticky floors, and glass escalator vignettes (goal blockage scenarios). When controls were added in the models for hypothesis five, anger and depression in the sticky floors vignette

and depression in the glass escalator vignettes were still significant predictors of intentions to steal. For females, the objective strain as measured by glass escalator discrimination was a significant predictor of intentions to steal. When controls were added in the model for hypothesis five, the effect remained. Subjective strain was still a significant predictor of intentions to steal after the controls were added.

In other results, the impulsivity control and pre-disposition variables were, not surprisingly, significant across the various models. Consistent with Agnew et al. (2002), low self-control, applied here as impulsivity, shares many traits with negative emotionality. Additionally, the pre-disposition variable for males were significant with all discrimination types, but non-significant for females with most discrimination types. The results are fairly consistent with those found by Mustaine and Tewksbury (2002). For females, the commitment variable, was the most consistently and strongly significant predictor of intentions to steal. Those more committed indicated lower odds of positive intentions to steal with all discrimination types, but this same variable was non-significant for males in most cases. Both males and females indicated lower intentions to steal when commitment was higher. It is unclear why this effect would be significant for one group and not the other.

Other significant results from this set of analyses were for the variables of age, race, and support. Marital status and peer associations were not significant predictors for either males or females in most of the discrimination models. It may be that males are more inclined to view theft as a justified coping strategy, regardless of the emotional state. Indeed, both impulsivity and pre-disposition were significant controls for males in each discrimination type, with results indicating significant differences between male and

female groups. This suggests that males in this sample followed the tendencies described by others in terms of the effect of controls and crime; specifically, that males tend to have greater number of delinquent peer associations than do females (Broidy and Agnew 1997), that self-control (impulsivity) is an important factor (Langton, Leeper-Piquero, and Hollinger 2006), and that past deviant behaviors are an important indicator (Mustaine and Tewksbury 2002) of future deviant behaviors. An alternative answer, however, is that the control variables have a different influence on the subjective evaluations of strains, leading to different emotional states. As noted by Agnew and others, not everyone evaluates an objective strain in the same subjective way. Control variables in this study appeared to operate through subjective strain determining which emotional state would be prevalent and to what degree.

Overall, the negative emotions of anger and depression in this study rarely predicted intentions to steal and usually when significant controls were added to the model. This is not too surprising since it has been predicted (See Broidy 2001) that negative emotions positively predict legitimate coping strategies and negatively predict crime. Additionally, the findings for hypothesis five suggest that, at least for males, self-control theory and past criminal history are better at predicting subjective strain and crime for certain discrimination types, specifically sexual harassment and the pay gap. GST seemed to be good at predicting intentions to steal for the goal blockage scenarios. Certainly, the effect pre-disposition and commitment for females had the greatest effect on decisions to steal with all of the scenarios for females. This would suggest GST alone is not the best predictor of intentions to steal for females.

*Comparisons of Male/Female and Vignette/Experienced Discrimination*

In reference to the last research question, findings for males and females in general differed only slightly, but importantly many of those variations were by discrimination type. For hypothesis one and combined discrimination measures, there was no significant difference between males and females for the vignette measure, but there was a significant difference between males and females for the experiential measure. Males were far more likely to engage in theft. For hypotheses two, three, and four and the combined discrimination measures, there were no significant differences between males and females for either vignette or experiential discrimination. With hypothesis five, there was no significant difference between males and females with the vignette combined measure, but there was with the experiential measure. Objective strain was a significant predictor of theft for males.

With the experiential data, there are significant differences between males and females with hypotheses 1 and 5. This would indicate that, despite the combined measure, significant differences exist for those who have actually experienced discrimination in the workplace. While obtaining perceived data is deemed by some to be as valid as experiential data, this last result illustrates the need for comparing both methods. For some strains, i.e. discrimination, the experience of actual incidents may have a more significant effect on strain-induced behaviors. This is what one would expect given the egregious nature of some discrimination types.

With the separate discrimination measures and hypothesis one, the sexual harassment vignette showed the only significant difference between males and females. For hypothesis two, there were significant gender differences for the sexual harassment



and the glass escalator vignettes. In terms of hypothesis three, significant differences between the two groups were noted in that, somewhat unexpectedly, males were many times more likely to indicate significant associations with subjective strain of sexual harassment and the pay gap predicting anger, even though conventional wisdom would suggest this would affect women to a greater degree (Greenberg 2002; Boushey and Cherry 2003; Barak et al. 2007; Massey 2007). None of the associations between subjective strains and depression showed significant gender differences. For hypothesis four, the results were mixed. The sexual harassment vignette showed significant gender differences with depression and intentions to steal. The sticky floors vignette showed significant gender differences with both anger and depression. There were no significant gender differences for the pay gap, glass escalator, or glass ceiling vignettes. In reference to hypothesis five, both the sticky floors and glass escalator vignettes showed significant gender differences. For the glass escalator vignette, females were significantly more likely to indicate subjective strain predicting intentions to steal. This is the only case where females were significantly different from males.

The most interesting result from the group differences was that males differed in unexpected ways, particularly with the negative affective state of depression and with discrimination strains typically applied to females. This may mean a re-thinking of how we apply negative affective states to individuals when conducting research using GST as a framework.

The most striking feature of the z-scores is the dispersion of the significant results. Almost every discrimination type showed some significant differences between some independent and dependent variables, but on different hypotheses. For example,

there were significant differences between males and females with hypotheses 1, 2, and 3 in the sexual harassment vignette, hypothesis 3 in the pay gap vignette, none in the glass ceiling vignette, hypotheses 4 and 5 in the sticky floors vignette, and hypotheses 2 and 5 in the glass escalator vignette. While seemingly sporadic, the pattern suggests that males are more affected than females by goal blockage scenarios as well as depression and personal affronts. Compare this result to the combined vignette measures where there are no significant differences between males and females. This is an important finding as it dramatically illustrates the need to separate discrimination types rather than using a combined measure.

Contrary to other literature (e.g., Hoffman and Su 1997; Mazerolle 1998; Mazerolle and Piquero 1998; Hoffman and Cerbone 1999) this study did find significant differences between males and females when examining the types of strain separately, but not when combining them into a single discrimination measure. Most notably, in the combined strain measures, only experienced males showed significant differences between females. With the separate measures, those who had experienced strain tended to show significance with the presence of noxious stimuli and absence of positive stimuli types of strain (sexual harassment and the pay gap), while those who had only perceived strain showed significance with the goal blockage forms (sticky floors and glass escalator) of strain. This last point is an important contribution to the literature as it may help researchers decide what type of data to collect when exploring various types of discrimination strain. This result also contributes to the literature by suggesting the lumping of strains into “negative life events” or some other combined category may not be appropriate for a major strain like discrimination. In addition, Agnew (1992) posited

that strain, whether objective or subjective, does not always lead to criminal behavior. Indeed, Agnew argued strain is more likely to lead to criminal behavior when outcomes are viewed negatively. He noted “it is important for GST [to] describe why some strains are more likely to be perceived as unjust than others” While gender discrimination is certainly seen as unjust, it may not be high enough in magnitude to elicit a theft response among women, but does elicit a theft response in males when material expectations as a loss of future earnings, or goal blockage, are not met.

The main results from the study can be condensed as these: the major tenets of GST as applied to this study were mostly supported with the goal blockage vignettes, but not the presence of negative stimuli or absence of positive stimuli vignettes. Furthermore, significant results were in somewhat unexpected directions, with males indicating higher odds ratios than females in many cases. Also, in support of a purpose of the study, combined discrimination measures were not as informative in telling the whole story as separate discrimination measures. In most respects males were more affected by discrimination in general than were females. This could be the result of male expectations or simply the difference between those who experience gender discrimination and those who merely perceive it. It may also be the case the psycho-social controls affected the subjective evaluation of strains for males to a greater degree. Vignettes and intentions to steal results were fairly consistent with experiential data and actual theft results, but with many caveats; not the least of which was the data issues present in terms of multicollinearity that resulted in suspect results with subjective strain and the elimination of frustration and anxiety. One of the more salient results was that general indicators of crime potential, such as impulsivity and pre-disposition, were more significant indicators

of both intentions to steal and actual theft than were negative affective states. This last result sheds some doubt on GST's ability to accurately predict theft in the workplace, at least with certain types of strain, above that of self-control theory or theories pertaining to pre-disposition.

### *Unique Aspects of the Study*

There are several unique aspects of the study. Each is deserving of some comment. First is the use of vignette data and experiential data. An interesting pattern surfaced between perceived and experienced strain. For both hypothesis one and five, where objective strain predicts crime, there were significant differences between males and females with the experienced groups, but not the vignette groups. This would suggest the obvious, that those males who have experienced discrimination are significantly more likely to engage in crime than females who experienced discrimination or males who had not experienced discrimination.

A second unique aspect of the study is the use of combined measures and separate measures. The use of both led to some interesting results. While mostly consistent with separate measures, combined measures did tend to underestimate the effect of objective strain on intentions to steal. This is extremely important for studies that do not use the full model, but rather a single measure with only objective strains, to estimate the effects of strain on theft. Another finding that points to the importance of using combined and separate measures was the significant differences between males and females with the sexual harassment vignette on hypotheses one, two, three and four. This was not the case with most of the other vignettes. This could be due to the egregious nature of that

discrimination, or to issues of socialization, but does illustrate the purpose for separating strains.

Finally, another important aspect of the study was the testing of hypotheses on male and female samples. Some findings suggested similarity across gender, other findings suggest differences. Interestingly, males were also significant with many of the goal blockage vignettes (glass ceiling, sticky floors, glass escalator), whereas females were not. This is consistent with what Gasser et al. (2000) and also Wood and Lindorff (2001) would suggest, that males tend to expect their goals to be met in the workplace. An interesting pattern in terms of theory is that the significant results for both males and females for objective to subjective strain, subjective strain to anger and subjective strain to depression, would disagree with what Broidy and Agnew (1997) would contend. These results suggested males and females do indeed experience strain similarly, particularly with negative emotion.

### *Policy Implications, Limitations and Future Research*

#### *Policy Implications.*

The policy implications for this study can be divided into two areas – hiring and awareness training for managers. In terms of hiring, business that have not done so, should adopt personality inventories to help identify issues of impulsivity, pre-disposition, and levels of commitment to aid in the selection process. These items were clearly shown to affect the subjective evaluation of strains and corresponding negative affective state.

In terms of awareness training for managers, three areas of emphasis seem to be

most relevant: strategies for dealing with goal blockage, training on all types of gender discrimination that also applies to males, and gender discrimination questions for exit interviews. In terms of strategies for dealing with goal blockage, particular attention to areas or sectors heavily impacted with one gender should focus attention on gender diversity as well as non-traditional gender roles in business. Although many companies have compulsory sexual harassment training, this training does not cover the range of gender discrimination in the workplace and is not usually applied to males. This will help minimize discrimination associated with the glass ceiling, sticky floors, and glass escalator types. Also, sexual harassment training needs to be inclusive of males. As found in this study, sexual discrimination has an emotional impact on males as well as females. Finally, including questions about gender discrimination issues on exit and loss prevention interviews may help businesses identify problem areas or managers. As indicated by this study, some theft intentions as well as actual theft incidents could be attributed at least in part to gender discrimination. Information pertaining to gender discrimination gained during an exit or loss prevention interview could aid in the developing preventative strategies.

*Limitations.*

The greatest limitation to the study was the way data was collected in the survey. The organization of the items caused a fair amount of missing data in some sections, which had to be rectified. This limited the analyses to logistic regression, which, while viable when examining a skewed distribution, does limit the variation in the dependent variable.

Since this study was the first to test the tenets of GST on gender discrimination and

employee intentions to steal/theft, it was unclear whether a student sample would capture both consistent and reliable data. It was argued, however, the age of the sample was consistent with data on those most likely to commit workplace theft and with those most likely to hold lower position jobs. Although there were issues of multicollinearity resulting in the removal of some variables, the remaining analyses were sufficient to test the theory. While the study was successful to a degree, future studies of this nature would be advised to incorporate a wider variety of job positions, particularly in the service and manufacturing industries. This may capture workers with varying levels of educational attainment, ethnicities and ages.

Also, a sample with respondents with lower educational attainment, more ethnic diversity and wider age range will provide respondents who have been in the workforce longer and may have experienced gender discrimination to a greater degree. This may also help level out the disparity between males and females. While the vignette section produced viable results, and indeed could suffice on its own as a source of data for this project, a better sample of those with greater work and discrimination experience would probably produce different results.

Finally, and most importantly, questionnaires should consider two additions. First, questions should be developed to explicitly differentiate objective strains from subjective strains as well as anger/frustration and depression/anxiety. In this sample, the lines between these concepts was often blurred and resulted in issues of multicollinearity. Second, this study did not control for recency due to the relatively young sample, which should be incorporated into future studies.

*Future Research.*

Overall, as an examination of the tenets of GST as applied to the issues of gender discrimination and workplace theft, it builds a foundation for further research in this area. The study does show that even as a general theory of crime, it can prove useful in discovering, or even eliminating, certain factors important in explaining theft by employees. The research findings also have important implications for studying gender discrimination and theft by employees. These implications may be useful in guiding existing policies or in developing new ones.

Future studies should also incorporate exacting measures of subjective strains and examine the link between them and social psychological controls. This will provide a more complete picture of how negative affective states are generated and linked to crime. In addition future studies should add measures of recency, duration, and magnitude to the above in order to gauge the differences between objective strains and subjective strains and negative affective states. Finally, future studies should include measures of same-sex harassment to the standard questionnaires to examine the differences in emotional impact if any.



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## APPENDIX

## WORKPLACE DISCRIMINATION SURVEY

Please take about 15 minutes and complete this survey. I encourage you to be as honest as possible with your answers since it is anonymous. No one, including me, will know your name or any other identifying information. The survey will help me in gaining insight into workplace discrimination and theft by employees as well as provide you with an opportunity to express your thoughts about theft by employees in a completely anonymous fashion.

## Section 1

## 1. Age:

List actual age: \_\_\_\_\_

## 2. Race (check only one):

African-American: \_\_\_\_\_

Caucasian: \_\_\_\_\_

Asian: \_\_\_\_\_

Hispanic: \_\_\_\_\_

Other: \_\_\_\_\_

## 3. Sex:

Female: \_\_\_\_\_

Male: \_\_\_\_\_

## 4. Marital Status

Married: \_\_\_\_\_

Single: \_\_\_\_\_

Divorced/Widowed: \_\_\_\_\_

Section 2 - Please indicate the approximate number of times you engaged in the following between ages 10 and 14:

How many times did you engage in any of the following between the ages of 10 and 14?	Never	Once or Twice	3 to 10 times	More than 10 times
5. Played "hooky" or ditched class				
6. Smoked cigarettes or marijuana				
7. Drank alcohol				
8. Violated curfew				
9. Stole money from parents				
10. Destroyed someone's property				
11. Sprayed graffiti or "tagged"				

Section 3 - For this section, please indicate your agreement with the following statements about relationships with your current friends:

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
12. Some of my friends are dishonest.				
13. At least one friend has tried to show me how to steal				
14. The people I hang out with love to get into trouble				

15. I have friends who have hit people before				
16. Some of my friends were in a gang				
17. My friends didn't get good grades in school				

Section 4

Answer the following questions based on the statement: "When it comes to goals or thinking about the future..."

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
18. I often act on the spur of the moment without stopping to think.				
19. I often do whatever brings me pleasure here and now, even at the cost of some distant goal.				
20. I'm more concerned with what happens to me in the short run than in the long run.				
21. I don't devote much thought and effort to preparing for the future.				

Section 5. For this section, please indicate your agreement with the following statements:

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
22. My friends don't really respect me				
23. My family cares for me very much				
24. I am not important to others				
25. I don't feel close to members of my family				
26. I am well liked by others				
27. I can rely on my friends				
28. I can't rely on my family for support				
29. If I died tomorrow, very few people would miss me				
30. My friends look out for me				
31. I feel a strong bond with my family				
32. My friends don't really care about my welfare				
33. People admire me				

Section 6 Vignettes

Please read each scenario and answer the follow-up questions based on how YOU would feel or react.

1. To earn money, you are working evenings and weekends at a local retail store as a cashier for \$8/hour. You are always timely, you know your job well, and help newer employees with store procedures and processes. On several occasions over the last few months, you have covered the shifts of those who called in sick. A short while ago, you asked your boss, who happens to be of the opposite sex, for a promotion to the position of department supervisor, which pays \$12/hour. On two separate occasions since, your boss has winked at you and told you that if you were willing to be a "good employee", you could expect the promotion. You ignore your boss and continue to do your job. A few weeks later, you ask your boss again about the promotion. Your boss says that you may have the promotion if you agree to go on a "date" and engage in some "special favors." You refuse.

34. If the scenario actually happened to you, on a scale of 1 to 10 with 1 being low to 10 being high, rate the level at which you believe the following statements are true:

- a. You would feel stress 1 2 3 4 5 6 7 8 9 10
- b. The supervisor's actions were intentional 1 2 3 4 5 6 7 8 9 10
- c. The supervisor's actions were unfair 1 2 3 4 5 6 7 8 9 10

- d. The supervisor's actions were harmful 1 2 3 4 5 6 7 8 9 10
- Also indicate the level of how this scenario would make you feel if it actually happened:
- e. I would feel frustrated 1 2 3 4 5 6 7 8 9 10
- f. I would feel angry 1 2 3 4 5 6 7 8 9 10
- g. I would feel depressed 1 2 3 4 5 6 7 8 9 10
- h. I would feel anxious 1 2 3 4 5 6 7 8 9 10

Referring to the scenario you just read, you find 20 dollars left behind in a cash drawer. Because of the treatment you received, how likely is it you would keep the 20 dollars for yourself:

- 35. Under the circumstances, I think keeping it would be justified 1 2 3 4 5 6 7 8 9 10

2. To earn money, you have been working evenings and weekends at a local retail store as a cashier for \$6/hour. You are always timely, know your job well, and help newer employees with store procedures and processes. After listening to some coworkers of the opposite sex talk about their pay in the breakroom, you realized you were getting paid \$2 less per hour than your opposite sex coworkers who were hired at the same time with the same qualifications as you. You asked your boss, who also happens to be the opposite sex, for a raise, but you were told to wait for six months until your next review.

36. If the scenario actually happened to you, on a scale of 1 to 10 with 1 being low to 10 being high, rate the level at which you believe the following statements are true:

- a. You would be stressed 1 2 3 4 5 6 7 8 9 10
- b. The supervisor's actions were intentional 1 2 3 4 5 6 7 8 9 10
- c. The supervisor's actions were unfair 1 2 3 4 5 6 7 8 9 10
- d. The supervisor's actions were harmful 1 2 3 4 5 6 7 8 9 10

Also indicate the level of how this scenario would make you feel if it actually happened:

- e. I would feel frustrated 1 2 3 4 5 6 7 8 9 10
- f. I would feel angry 1 2 3 4 5 6 7 8 9 10
- g. I would feel depressed 1 2 3 4 5 6 7 8 9 10
- h. I would feel anxious 1 2 3 4 5 6 7 8 9 10

Referring to the scenario you just read, you find 20 dollars left behind in a cash drawer. Because of the treatment you received, how likely is it you would keep the 20 dollars for yourself:

- 37. Under the circumstances, I think it would be justified Not at all Somewhat Definitely Extremely likely

3. To earn money, you have been working evenings and weekends at a local retail store as a cashier for \$8/hour. You are always timely, know your job well, and help newer employees with store procedures and processes. On several occasions over the last few months, you have covered the shifts of those who called in sick. One day you ask your boss, who happens to be of the opposite sex, for a promotion to the position of department supervisor, which pays \$12/hour. On two separate occasions, your boss tells you that if you continue to be a good employee, you can expect the promotion within three months. Three months pass and, one day, you remind your boss about the promised promotion. Your boss says that you may not be the right "fit" for the job after all. The promotion instead goes to a coworker of the opposite sex who has only been working at the company for a few weeks.

38. If the scenario actually happened to you, on a scale of 1 to 10 with 1 being low to 10 being high, rate the level at which you believe the following statements are true:

- a. You would be stressed 1 2 3 4 5 6 7 8 9 10
- b. The supervisor's actions were intentional 1 2 3 4 5 6 7 8 9 10
- c. The supervisor's actions were unfair 1 2 3 4 5 6 7 8 9 10
- d. The supervisor's actions were harmful 1 2 3 4 5 6 7 8 9 10

Also indicate the level of how this scenario would make you feel if it actually happened:

- e. I would feel frustrated 1 2 3 4 5 6 7 8 9 10
- f. I would feel angry 1 2 3 4 5 6 7 8 9 10
- g. I would feel depressed 1 2 3 4 5 6 7 8 9 10
- h. I would feel anxious 1 2 3 4 5 6 7 8 9 10

Referring to the scenario you just read, you find 20 dollars left behind in a cash drawer. Because of the treatment you received, how likely is it you would keep the 20 dollars for yourself:

39. Under the circumstances, I think it would be justified      Not at all      Somewhat      Definitely  
Extremely likely

4. To earn money, you have been working evenings and weekends at a local retail store as a cashier for \$8/hour. You are always timely, know your job well, and help newer employees with store procedures and processes. On several occasions over the last few months, you have covered the shifts of those who called in sick. One day, you ask your boss, who is of the opposite sex, for a transfer to the position of stocker on the salesfloor. On two separate occasions, your boss tells you that if you continue to be a good employee, you can expect the transfer within three weeks. Three weeks pass and, one day, you remind your boss about the promised transfer. Your boss tells you that you are a good employee, but some jobs are just "better suited" for "others" and your boss promotes someone of the opposite sex instead.

40. If the scenario actually happened to you, on a scale of 1 to 10 with 1 being low to 10 being high, rate the level at which you believe the following statements are true:

- |  |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|----|
| a. You would be stressed                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| b. The supervisor's actions were intentional | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| c. The supervisor's actions were unfair      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| d. The supervisor's actions were harmful     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Also indicate the level of how this scenario would make you feel if it actually happened:

- |                            |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|----|
| e. I would feel frustrated | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| f. I would feel angry      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| g. I would feel depressed  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| h. I would feel anxious    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Referring to the scenario you just read, you find 20 dollars left behind in a cash drawer. Because of the treatment you received, how likely is it you would keep the 20 dollars for yourself:

41. Under the circumstances, I think it would be justified      Not at all      Somewhat      Definitely  
Extremely likely

5. You are a teller at a local bank. All of the tellers there are the same sex as you except for one. That person has the same training and qualifications as most of the other tellers in the bank, but less time. When a promotion to finance officer came open, many of the tellers including that other person applied, although that person had been there for less time. When it was time for the interviews, that other person of the opposite sex was given first opportunity. After the interview, that person was automatically given the promotion because the bank manager felt that person could "handle it." You, as well as most of the other tellers liked that person and thought that person was good at the job, but you felt you and the other tellers deserved an equal chance at the position.

42. If the scenario actually happened to you, on a scale of 1 to 10 with 1 being low to 10 being high, rate the level at which you believe the following statements are true:

- |  |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|----|
| a. You would be stressed                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| b. The supervisor's actions were intentional | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| c. The supervisor's actions were unfair      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| d. The supervisor's actions were harmful     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Also indicate the level of how this scenario would make you feel if it actually happened:

- |                            |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|----|
| e. I would feel frustrated | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| f. I would feel angry      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| g. I would feel depressed  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| h. I would feel anxious    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |



Referring to the scenario you just read, you find 20 dollars left behind in a cash drawer. Because of the treatment you received, how likely is it you would keep the 20 dollars for yourself:

43. Under the circumstances, I think it would be justified  Not at all  Somewhat  Definitely  Extremely likely

**Section 7 - Employment**

44. Do you now have, or have had in the past, paid employment with a company outside the home:

Yes:  if so, please continue with the next section.

No:  if so, you are done with the survey. Thank you very much for your participation

45. Choose ONE sector that most nearly represents your current or most recent type of employment: \_\_\_\_\_

List of NAICS sectors

1. Agriculture, Forestry, Fishing, and Hunting (farming, animal raising or tending, etc.)
2. Construction (builder, day laborer, dry wall hanger, framer, roofer, etc.)
3. Manufacturing (assembly line, parts, milling, etc.)
4. Retail Trade (cashier, stocker, sales, management, customer service, etc.)
5. Transportation and Warehousing (driver or warehouse worker, valet, etc.)
6. Information (data collection, IT service, telemarketing, etc.)
7. Finance and Insurance (banking/teller, loan officer, insurance or claims adjuster, etc.)
8. Educational Services (teaching, teaching assistant, tutor, etc.)
9. Health Care and Social Assistance (nursing, adult or child care, welfare, etc.)
10. Arts, Entertainment, and Recreation (coach, gym attendant, etc.)
11. Accommodation and Food Services (hotel work, waiter, bartender, server, etc.)
12. Federal, State, and Local Government (police, fire department, military, local gov. etc.)

46. Job title (e.g. cashier, roofer, fry cook, valet, department head, etc.) \_\_\_\_\_

47. Average number of hours per week worked \_\_\_\_\_

48. Do you or did you “clock in” for each shift or are/were you “salary” (check one):

Hourly:

Salary:

49. What is/was your last yearly pay?

less than 10,000 per year : \_\_\_\_\_

Between 10,001 and 15,000 per year: \_\_\_\_\_

Between 15,001 and 20,000 per year: \_\_\_\_\_

More than 20,000 per year: \_\_\_\_\_

50. Are/were you a supervisor or manager?

Yes:

No :

51. If yes, how many people do/did you supervise or manage (list approximate number)? \_\_\_\_\_

52. How long have you worked (or how long did you work) for your company?

Years: \_\_\_\_\_ Months: \_\_\_\_\_

**Section 8 -How many times have you engaged in any of the following activities in any workplace?**

Questions	Never	Once or twice	3-10 times	More than 10 times

53. Unauthorized eating or taking of food (that is NOT common practice)				
54. Taken something home that should have been thrown away (broken or damaged merchandise)				
55. Taken something (lunch, clothing, cash, merchandise, etc.) from another employee without permission				
56 Taken cash, merchandise, food, or other products from the company without permission				
57. Given unwarranted or unauthorized cash, merchandise, products, or food to a friend, coworker, or relative (passing, sweetheart deal, underringing, voiding).				
Questions continued...	Never	Once or twice	3-10 times	More than 10 times
58. Used a computer system or paper system to obtain cash, merchandise, products, food or a refund fraudulently (refund credit, using someone else's credit card, walk up refund, voucher or petty cash fraud)				
59. manipulated a price tag, ticket, or register to pay a lower price than authorized				
60. Made money through manipulating company stock investments using confidential information				

61. Were you ever caught for an offense at work?  
 A. N/A (never committed an offense)\_\_\_\_  
 B. Yes\_\_\_\_  
 C. No\_\_\_\_

Section 9 – Keeping in mind the questions you just answered, please indicate your level of agreement with the following statements:

Questions	Strongly Agree	Agree	Disagree	Strongly Disagree
62. It is simply wrong to steal				
63. I wouldn't steal from work because it isn't worth getting caught.				
64. I wouldn't steal from work because I don't want to lose my job.				
65. I have been tempted to steal at work, but the security is too tight.				
66. If my workplace had better items to steal, I would be tempted to steal from my employer.				
67. I have stolen from my workplace because I needed the money.				
68. I have stolen from my workplace because I did not like my boss.				
69. I have stolen from my workplace because sudden life events forced me to.				
70. I have stolen from my workplace because friends pressured me into it.				
About workplace theft in general...				
71. I have no allegiance to my current or most recent company and I could just as well be working for a different				

organization doing the same thing				
72. Theft would be easy at my current or most recent job for someone who wanted to do it				
73. It would take very little change in my circumstances to cause me to leave a company for which I work/worked.				
74. Supervisors are pretty good about enforcing the rules at my current or most recent job				
75. There is not too much to be gained by sticking with a company unless the pay is good				
76. There are/were no security cameras or security personnel at my current or most recent job				
77. Management does/did not much care about theft by employees in my current or most recent workplace				

**Section 10–Experienced Workplace Gender Discrimination**

For this next section, please indicate how many times the following has happened to you at any of your current or past jobs:

	Never	Once or twice	3 to 5 times	More than 5 times
78. I have been inappropriately touched by a coworker or supervisor.				
79. Although better qualified, I have been passed up for promotion because of my sex.				
80. Others have been promoted ahead of me because they were of the opposite sex.				
81. I believe I was given a lower paying job because of my sex.				
82. I am constantly being asked out on dates by coworkers, even though I say no.				
83. Because of my sex, I was assigned a job far beneath my qualifications.				
84. I have been turned down for promotion because my supervisor is the opposite sex.				
85. I have actually received a promotion because my sex is different than my coworkers.				
86. I was not given the same salary as my equally-qualified coworkers because of my sex.				
87. My supervisor has subtly threatened or coerced me in a sexual manner.				
88. I have been denied a transfer to a better job because of my sex.				
89. I have actually received more pay because of my sex				

If you answered “Never” to all of the above, you are done with the survey. Thank you for your participation.

If you answered “1” or more to ANY of the above, please continue.

Based on the discrimination questions you just answered, how much would you agree with the following:  
 90. Any sexual harassment I have experienced at work was:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
---------	-----	------------	----------	------------	-----------

a. Harmful					
b. Intentional					
c. Unjust/unfair					

91. Any pay differences I have received because of my sex was:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Harmful					
b. Intentional					
c. Unjust/unfair					

92. Any promotion I did not receive because of my sex was:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Harmful					
b. Intentional					
c. Unjust/unfair					

93. Any promotion my coworker of the opposite sex received because their sex was different than me and my same-sex coworkers was:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Harmful					
b. Intentional					
c. Unjust/unfair					

94. Any job for which I did not get an equal chance at because of my sex was:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Harmful					
b. Intentional					
c. Unjust/unfair					

Also based on the discrimination questions you answered earlier, to what degree have you felt the following based on your experiences at work:

Answers	N/A	Not at all	Somewhat	Definitely	Very much

95. Any sexual harassment I have experienced at work made me feel:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Frustrated					
b. Angry					
c. Depressed					
d. Anxious					

96. Any pay differences I have received because of my sex made me feel:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Frustrated					
b. Angry					
c. Depressed					
d. Anxious					

97. Any promotion I did not receive because of my sex made me feel:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Frustrated					
b. Angry					

c. Depressed					
d. Anxious					

98. Any promotion my coworker of the opposite sex received because their sex was different than me and my same-sex coworkers made me feel:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Frustrated					
b. Angry					
c. Depressed					
d. Anxious					

99. Any job for which I did not get an equal chance at because of my sex made me feel:

Answers	N/A	Not at all	Somewhat	Definitely	Very much
a. Frustrated					
b. Angry					
c. Depressed					
d. Anxious					

End of Survey. Thank you very much for participating and for your time.

## VITA

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## Education

- Ph.D. (ABD) Criminology & Criminal Justice, Old Dominion University  
 Dissertation: "A Further Test of Strain Theory: Does Gender  
 Discrimination contribute to Theft by Employees"  
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- M.A. Applied Sociology (Criminal Justice Emphasis), Old Dominion  
 University, 2004
- B.S. Criminal Justice, Old Dominion University (Summa Cum Laude), 2001

## Education Work Experience

- Graduate Teaching Assistant, Criminal Justice/Sociology Old Dominion University,  
 Norfolk, Virginia, 2007-2009
- Adjunct Faculty, Criminal Justice/Sociology Old Dominion University, Norfolk,  
 Virginia, 2004-2007

## Publications

- Peer Reviewed: Casten, John and Brian Payne. 2008. "The Influence of Perceptions  
 of Social Disorganization and Victimization on Business Owners'  
 Decisions to Use Guardianship Strategies" *Journal of Criminal  
 Justice*, 36:396-402.
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 Guhr, Kara Hoofnagle, Jessica Huffman, and Moises Mina. 2011.  
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 Their Job." Submitted to *The Qualitative Report*, 16(1) :180-191.
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 Hoofnagle, Jessica Huffman, and Moises Mina. 2009. "Advantages  
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 from Successful Criminal Justice Transfer Students." Submitted to  
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