

**THE PERILS OF WORKPLACE RECOGNITION:  
ANTECEDENTS AND CONSEQUENCES OF DISCOMFORT ASSOCIATED WITH  
BEING THE TARGET OF THREATENING UPWARD COMPARISONS**

A Dissertation

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

in

The College of Business Administration

by  
Stephanie Case Henagan  
B.S., Louisiana State University, 1998  
M.B.A., Louisiana State University, 2000  
August, 2006

## **DEDICATION**

To my grandfather, Paul W. Brock, Sr., who began encouraging me at my birth, and whose inspiration and support continues in my heart to this day.

## ACKNOWLEDGMENTS

No one can accomplish great feats without the dedication, support, and guidance of others. For this feat, I would like to give special thanks to Professor Arthur G. Bedeian for the opportunity to work with him, for his time, experience, expertise, and patience, and for giving me the encouragement I needed to grow and persevere.

Further appreciation goes to my other dissertation committee members, Professors Hettie A. Richardson, Kevin W. Mossholder, and Timothy D. Chandler for their time and guidance. In addition, I would like to thank my husband, Barry D. Henagan, my parents, Bette and Bart Rutan, Susan and Gary Case, Mona and David Henagan, and Carol and Ken Gikas, and my grandmother, Louise B. McCarron, for their continuous support and belief in me.

## TABLE OF CONTENTS

<b>Dedication .....</b>	<b>ii</b>
<b>Acknowledgments .....</b>	<b>iii</b>
<b>List of Tables .....</b>	<b>vii</b>
<b>List of Figures.....</b>	<b>viii</b>
<b>Abstract.....</b>	<b>ix</b>
<b>Chapter One: The Dissertation Topic.....</b>	<b>1</b>
Statement of the Problem.....	3
Theoretical Background.....	5
Summary of Remaining Chapters.....	8
<b>Chapter Two: Conceptual Scheme and Hypotheses.....</b>	<b>12</b>
STTUC Antecedents .....	13
Dispositional Factors .....	13
Perceptual Factor .....	15
Situational Factor .....	17
STTUC Consequences.....	17
Behavioral Responses .....	17
Affective Responses.....	20
Direct Paths from Antecedents to Consequences .....	22
Dispositional Factors .....	22
Perceptual Factor .....	24
Situational Factor .....	25
<b>Chapter Three: Pretest.....</b>	<b>26</b>
Sample.....	26
Method .....	27
Measures .....	28
Independent Variables .....	28
STTUC .....	29
Dependent Variables.....	30
Control Variables.....	32
Results.....	33
Descriptive Statistics and Correlations .....	33
Factor Analysis .....	33
<b>Chapter Four: Method .....</b>	<b>39</b>
Sample.....	39
Procedure .....	40
Measures .....	43

Independent Variables .....	43
STTUC .....	46
Dependent Variables .....	47
Control Variables .....	49
Methodology .....	50
<b>Chapter Five: Analyses and Results.....</b>	<b>53</b>
Descriptive Statistics and Correlations .....	53
Multiple Regression Analyses .....	53
Latent-variable STTUC Model .....	55
Model Trimming .....	56
Summary .....	59
<b>Chapter Six: Conceptual Respecification .....</b>	<b>62</b>
STTUC as a Moderator .....	62
STTUC and Interpersonal Sensitivity .....	64
STTUC and Empathic Concern .....	65
STTUC and Competitiveness .....	66
Outperformers' STTUC and Actual Threat Experienced by Coworkers.....	66
Analyses & Results of Respecification.....	67
<b>Chapter Seven: Discussion and Conclusions.....</b>	<b>80</b>
Discussion .....	80
STTUC Antecedents .....	82
STTUC Consequences .....	83
Direct Paths from Antecedents to Consequences .....	83
STTUC as a Moderator .....	85
Summary .....	86
Theoretical Implications .....	87
Practical Implications.....	90
Limitations and Future Research .....	91
Conclusions.....	94
<b>References.....</b>	<b>95</b>
<b>Appendix</b>	
<b>1</b> <b>Pretest Survey.....</b>	<b>102</b>
<b>2</b> <b>Award-Recipient Survey .....</b>	<b>105</b>
<b>3</b> <b>Coworker Survey .....</b>	<b>108</b>
<b>4</b> <b>Survey Cover Letter .....</b>	<b>110</b>
<b>5</b> <b>Second Survey Cover Letter .....</b>	<b>111</b>

<b>6</b>	<b>Informed Consent .....</b>	<b>112</b>
<b>7</b>	<b>Reminder Postcard .....</b>	<b>113</b>
<b>8</b>	<b>Reminder E-mail.....</b>	<b>114</b>
<b>Vita .....</b>		<b>115</b>

## LIST OF TABLES

1. Previously Tested Aspects of the STTUC Framework.....	7
2. Aspects of the STTUC Framework Included in the Dissertation .....	11
3. Means, Standard Deviations, and Intercorrelations of Pretest Study Variables .....	34
4. Pretest STTUC Rotated Factor Matrix .....	37
5. Demographics across Companies .....	41
6. ANOVA Results for Demographic Differences across Companies .....	41
7. Rotated Factor Matrix for Threat.....	45
8. Rotated Factor Matrix for Appeasement Items.....	48
9. Means, Standard Deviations, and Intercorrelations of Dissertation Study Variables.....	54
10. Standardized Beta Coefficients from Multiple Regression Analyses.....	56
11. Effects Decomposition for Partially Mediated Latent-variable STTUC Path Model.....	57
12. Goodness-of-Fit Summary.....	59
13. Results of Hierarchical Regression Analyses for Modest Self-Presentation .....	68
14. Results of Hierarchical Regression Analyses for Sympathy .....	69
15. Results of Hierarchical Regression Analyses for Avoidance .....	70
16. Results of Hierarchical Regression Analyses for SMUAC .....	71
17. Results of Hierarchical Regression Analyses for Recognition Preference.....	72
18. Summary of Findings.....	81

## LIST OF FIGURES

1. Conceptual Scheme.....	10
2. Full Path Model.....	52
3. Model B Path Analysis Results.....	60
4. Revised Conceptual Scheme.....	63
5. Plots of the Interaction between Interpersonal Sensitivity and STTUC.....	74
6. Plots of the Interaction between Empathic Concern and STTUC.....	75
7. Plots of the Interaction between Internal Threat and STTUC.....	78
8. Plots of the Interaction between External Threat and STTUC.....	79

## ABSTRACT

This dissertation explores theoretical links among interpersonal, perceptual, and situational variables and *sensitivity about being the target of threatening upward comparisons* (STTUC) within a workplace setting. It also investigates affective and behavioral responses outperformers may enact to decrease effects thought to be associated with STTUC. Because of the novelty of investigating STTUC in a field sample, the actual nature of the relationships among STTUC and the focal study variables were examined in multiple ways. Specifically, workplace outperformers' interpersonal sensitivity, empathic concern, and competitive psychological climate, along with actual threat experienced by the outperformed, were all expected to increase the likelihood that outperformers would experience STTUC, and STTUC was, in turn, expected to result in the use of appeasement and avoidance behaviors, propensity for socially motivated underachievement, and decreased preference for public recognition. Additionally, direct linkages between the antecedents and consequences were expected, as well as post-hoc hypotheses predicting these direct relationships would actually be moderated by STTUC. Results suggested empathic concern, competitive psychological climate, and threat experienced by the outperformed were antecedents to STTUC and had direct relationships with many of the study's consequences. STTUC was not found to be directly related to the study's consequences, but it did serve as a moderating variable for the relationships between the antecedents interpersonal sensitivity, empathic concern, and threat and several of the consequences. These results provide researchers and practitioners with insights into which factors influence outperformers' STTUC, as well as highlight the important role STTUC plays in determining outperformers' reactions to being upward comparison targets.

## CHAPTER ONE: THE DISSERTATION TOPIC

“Social comparison theory has a most peculiar history. Pictorially, this history is like the tracks of a squirrel in my snow covered backyard. The tracks zig zag unpredictably and then disappear near an elm, to next be seen near a maple, or the tracks may be obscured by those of other squirrels, or rabbits.”

(Wheeler, 1991, p. 3)

In developing the theory of social-comparison processes, Festinger (1954) hypothesized that individuals possess an innate desire to evaluate their opinions and abilities by comparing them with those of others. He further reasoned that in the absence of clear standards, individuals will evaluate their opinions and abilities against others whom they judge to be like themselves. Subsequent research has repeatedly shown that individuals are, indeed, motivated to seek such evaluations for the purposes of self-appraisal, self-improvement, and self-enhancement (Gibbons & Buunk, 1999). This research has been extended to address the dynamics underlying social-comparison processes (e.g., Krueger, 2000), the conditions under which social comparisons occur (e.g., Gibbons & Buunk, 1999), and the influence of social comparisons on outcomes such as subjective well-being (e.g., Diener & Fujita, 1997), affective reactions (e.g., Buunk, Ybema, & van der Zee, 2001), and work productivity (e.g., Vrugt & Koenis, 2002). Over time, the original focus of social-comparison theory, wherein individuals evaluate their opinions and abilities against those of others most like themselves, has evolved to also include comparisons with others judged to be either more (i.e., *upward comparisons*) or less fortunate (i.e., *downward comparisons*; e.g., Wills, 1981).

Research has shown that upward comparisons often lead to emotional discomfort or negative affect (e.g., Tesser, 1988), whereas downward comparisons lead to pleasurable

emotions or positive affect (e.g., Aspinwall & Taylor, 1993; Wills, 1981). Related research has examined the possibility that interpersonal and situational factors, such as closeness with a comparison other (Pleban & Tesser, 1981) or the level of an individual's self-construal (Gardner, Gabriel, & Hochschild, 2002; Stapel & Koomen, 2001), can differentially impact the effects of social comparisons. Research also suggests that responses to upward and downward comparisons are particularly salient when a comparison domain is self-relevant and when a comparison other is seen as otherwise similar to oneself (Pleban & Tesser, 1981; Tesser, 1988).

In this connection, it has been shown that in situations where achievement is a relevant comparison domain and others are viewed as meaningful comparison targets, outperformers, while perhaps experiencing private satisfaction in their achievements, may view their personal status with some ambivalence. For example, Exline, Single, Lobel, and Geyer (2004) investigated university students' preferences for public recognition of test scores. Among those receiving higher grades, there was a much stronger preference for private over public disclosure. This preference was related to concerns about possible negative interpersonal responses to outperformance. As this study demonstrated, outperformance can present a threat to interpersonal relationships and, for some, alleviating this threat is more valued than acquiring personal status (Santor & Zuroff, 1997).

Social comparisons of this type are likewise a fundamental aspect of workplace reward systems. Managers seeking to encourage high performance reward employees whose achievements go beyond expectations (see Ambrose & Kulik, 1999, for a review of the relevant literature). To date, the social-comparison literature has largely focused on individuals making comparisons against higher achievers (e.g., Buunk, Collins, Taylor, VanYperen, & Dakof, 1990). Research on social comparisons in the workplace has addressed the potential for negative

consequences (such as feelings of envy, inferiority, or anger), for comparers when an outperformer receives a sales award or is otherwise recognized for producing more (Smith, 2000). Because of the interpersonal nature of social comparisons, it should be recognized that there may be consequences not only for those who are actively making comparisons, but also for those with whom comparisons are being made. It is possible that receiving rewards and recognition in some situations can have negative effects due to naturally occurring social-comparison processes. For instance, students receiving a perfect score on an exam may feel overjoyed on the inside, but may at the same time be fearful of creating a status discrepancy for others. As a result, they may be hesitant for their superior performance to be publicly recognized. For outperformers, awareness that others are making comparative assessments may prompt certain emotions or reactions stemming from being looked to for evaluation purposes. Such discomfort may stem from concern for one's self, for those outperformed, or for relevant interpersonal relationships (Exline & Lobel, 1999).

### **Statement of the Problem**

In addition to positing that individuals will be inclined to compare themselves with similar others, Festinger (1954) also proposed that individuals have an inherent drive for upward achievement and to decrease any negative status discrepancies resulting from such comparisons. Depending on an individual's perceived control in decreasing status differences (Testa & Major, 1990), the self-relevance of attributes being compared (Wood & Taylor, 1991), and the closeness of comparison others (Tesser, 1991), performance comparisons (as discussed above) can result in negative consequences for both comparers and targeted comparison others. Whereas prior research has principally focused on the experiences of those outperformed, drawing on Festinger's (1954) social-comparison theory, Exline and Lobel (1999) have proposed a

framework that considers the consequences of being the target of comparisons, including outperformer emotional discomfort (i.e., negative affect), which they refer to as *sensitivity about being the target of threatening upward comparisons* (STTUC). Outperformance can occur within any domain, including ability, relationship quality, success, or health, and usually results in pleasurable emotions (i.e., positive affect). At the same time, however, outperformers can also experience negative affect associated with relevant interpersonal relationships. STTUC is the result of concern that one's own achievements pose a threat to others' self-esteem or self-worth. According to Exline and Lobel (1999), outperformers may perceive that their achievements pose a threat to others when they sense others are experiencing negative affect as a result of an unfavorable upward comparison. Thus, even though outperformers may experience internal pride in their achievements, they may simultaneously experience emotional discomfort due to a concern for how such achievements affect others and their relationships with others (Exline & Geyer, 2003).

Whereas social-comparison theory has to date focused on consequences for those actively making upward comparisons (e.g., Buunk et al., 1990), this dissertation will consider the experiences of those who are the targets of such comparisons, specifically, those whose achievements result in others experiencing a status discrepancy (such as perceiving themselves as relatively less accomplished). Especially in organizational settings, where achievements are often publicly recognized and rewarded, outperformers may be cognizant that others are making relative comparisons in an effort to determine their own status and, in turn, self-worth. As presently argued, being a target of upward comparisons that pose a threat to comparers' self-worth may cause discomfort for outperformers. As further argued this discomfort may lead to affective and behavioral responses, such as sympathy for the outperformed and attempts to aid

them in lessening their perceived status discrepancies (Exline & Lobel, 1999). This dissertation explores theoretical links among interpersonal, perceptual, and situational variables and STTUC within a workplace setting. It also investigates affective and behavioral responses outperformers may enact to decrease effects thought to be associated with STTUC. In doing so, it is hoped that the ensuing results will aid managers in more fully understanding factors associated with outperformers' STTUC, as well as shed light on the potential negative consequences of publicly recognizing superior performance.

### **Theoretical Background**

As noted, superior performance is most often associated with positive consequences, such as overall subjective well-being (Diener & Fujita, 1997). When it is also considered that others -- by extension -- recognize their relative underperformance, however, outperformers may also experience emotional discomfort at being the target of threatening upward comparisons. Exline and Lobel (1999) reason that sensitivity about being the target of threatening upward comparisons (SSTUC) requires that outperformers: (a) perceive themselves to be the target of an upward comparison, (b) believe the resulting comparison will pose a threat to a comparer, and (c) feel some concern about the well-being of the comparer, about their interpersonal relationship with the comparer, or that the comparer may try to retaliate as a result of feeling threatened. By definition, outperformers who do not perceive themselves as the target of an upward comparison have no reason to be sensitive about being a targeted comparison. The negative affect associated with STTUC is, thus, a result of the realization that others, relevant interpersonal relationships, or the self could be harmed by one's outperformance. Therefore, for outperformers to experience emotional discomfort, all three of the above conditions must be met (Exline & Lobel, 1997; 2001).

According to the emerging outperformance literature (see Exline & Lobel, 1999, for a review), in the context of interpersonal relationships, outperformers' responses to the emotional discomfort associated with STTUC may take many forms, ranging from outperformers distancing themselves from those they have outperformed (to eliminate the possibility of confrontation, retaliation, or simple conversation about the domain of outperformance) to attempting to appease the outperformed (by making extra efforts to placate them, in a sense trying to make up for the perceived "harm" their outperformance has caused). In the face of their own high achievements, outperformers may actually experience embarrassment, in that it was their own actions that lead to others being outperformed (M. Bennett & Dewberry, 1989). Consequently, some outperformers may refrain from talking about or making their achievements obvious (i.e., engage in self-modesty; Daubman, Heatherington, & Ahn, 1992; Heatherington, Daubman, Bates, Ahn, Brown, & Preston, 1993). If the emotional discomfort associated with STTUC is intense enough, some outperformers may actually reduce their subsequent efforts so as to maintain interpersonal relationships (White, Sanbonmatsu, Croyle, & Smittipatana, 2002) or to avoid the possibility of becoming the target of future threatening upward comparisons.

Exline and Lobel (1999) present a framework detailing possible affective and behavioral responses to STTUC. They propose that the characteristics of outperformers, the situations in which outperformance occurs, and those being outperformed can all play a role in determining STTUC and resulting affective and behavioral outcomes. Exline and her colleagues have tested several aspects of their framework (see Table 1 for a summary). To date, however, research has only focused on outperformance in terms of academic grades (Exline et al., 2004), giftedness (Cross, Coleman, & Terhaar-Yonkers, 1991), or in outperforming within close personal relationships (Exline & Lobel, 2001). Moreover, all previous STTUC research has been

**TABLE 1: Previously Tested Aspects of the STTUC Framework**

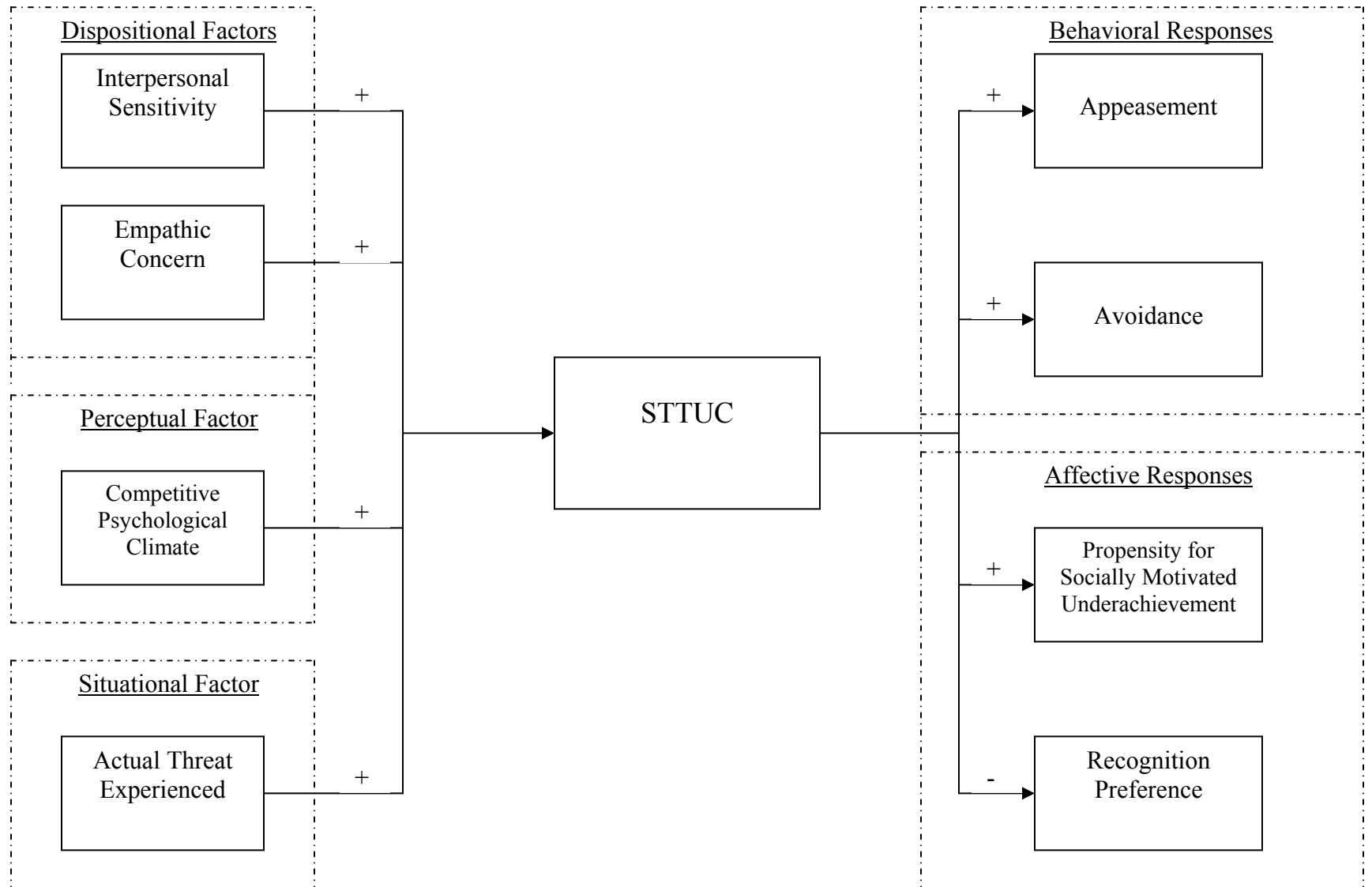
<b>STTUC Condition</b>	<b>Outperformer Characteristic</b>	<b>Situational Characteristic</b>	<b>Comparer Characteristic</b>	<b>Affective Response</b>	<b>Behavioral Response</b>
<u>Perceived threat to others</u> (Exline & Lobel, 1997; Exline & Lobel, 2001; Exline et al., 2004; Geyer & Exline, 2003)	<u>Sociotropy</u> (Exline et al., 2004; Exline & Geyer, 2003; Geyer & Exline, 2003)	<u>Relationship quality</u> (Exline & Lobel, 2001)		<u>Recognition preference</u> (Exline et al., 2004)	<u>Appeasement</u> (Exline & Lobel, 2001; Geyer & Exline, 2003; Geyer & Exline, 2004)
<u>Concern about threat to others</u> (Exline & Lobel, 2001; Exline et al., 2004; Geyer & Exline, 2003)	<u>Trait competitiveness</u> (Exline & Geyer, 2003; Exline et al., 2004)			<u>Relationship strain</u> (Exline & Lobel, 1997; Exline & Lobel, 2001)	<u>Avoidance</u> (Exline & Lobel, 2001)
	<u>Narcissism</u> (Exline & Geyer, 2003; Exline et al., 2004)			<u>Positive affect</u> (Exline & Lobel, 2001; Geyer & Exline, 2003)	
	<u>Trait self-control</u> (Exline & Geyer, 2003)			<u>Negative affect</u> (Exline & Lobel, 2001)	
	<u>STTUC susceptibility</u> (Exline & Geyer, 2003)				

conducted in laboratory settings using university undergraduates (e.g., Exline & Lobel, 1999; Geyer & Exline, 2004). Laboratory experiments have certain advantages in honing hypotheses, but it would also be helpful with regard to establishing the generalizability of previous findings to view STTUC in a more realistic and applied setting. In particular, because of the role that rewards play in organizations, it is of practical interest to address possible negative consequences of publicly recognizing superior performance. Hence, this dissertation identifies and tests selected aspects derived from the Exline and Lobel (1999) framework as they relate to recognition for workplace performance. Specifically, this dissertation presents a conceptual scheme (as depicted in Figure 1 and developed in Chapter Two) for investigating the role that STTUC plays in mediating the impact of dispositional (viz., interpersonal sensitivity and empathic concern), perceptual (viz., competitive psychological climate), and situational (viz., actual threat experienced by comparers) characteristics on affective (viz., preference for public recognition and propensity for socially motivated underachievement) and behavioral (viz., appeasement and avoidance) responses of employees whose superior performance has been publicly recognized. Table 2 identifies those aspects of the STTUC framework that will be studied, noting those that are original to the present dissertation.

### **Summary of Remaining Chapters**

This chapter has extended a relatively new application of social-comparison theory to a consideration of outperforming employees' sensitivity about being the target of threatening upward comparisons. A proposed conceptual scheme for investigating the consequences of upward comparisons on outperformers was presented. Hypotheses for testing this conceptual scheme are developed in Chapter Two. A summary of a pretest conducted to modify and improve upon construct measures is reported in Chapter Three. Methods for testing the

conceptual scheme are described in Chapter Four. Chapters Five and Six present results and conclusions.



**FIGURE 1: Conceptual Scheme**

**TABLE 2: Aspects of the STTUC Framework Included in the Dissertation**

<b>STTUC Condition</b>	<b>Outperformer Characteristic</b>	<b>Situational Characteristic</b>	<b>Comparer Characteristic</b>	<b>Affective Response</b>	<b>Behavioral Response</b>
Concern about threat to self, others, and relationships*	Empathic concern*	Competitive psychological climate*	Actual threat experienced from comparisons*	Recognition preference	Appeasement
	Interpersonal sensitivity*			Propensity for socially motivated underachievement*	Avoidance

\* New contribution of this dissertation

## CHAPTER TWO: CONCEPTUAL SCHEME AND HYPOTHESES

As noted in Chapter 1, Exline and Lobel (1999) reason that sensitivity about being the target of threatening upward comparisons (SSTUC) requires that outperformers: (a) perceive themselves to be the target of an upward comparison, (b) believe the resulting comparison will pose a threat to a comparer, and (c) feel some level of concern about the well-being of the comparer, their relationship with the comparer, or whether the comparer might possibly retaliate as a result of feeling threatened. The first of these requirements mandates a belief that one has outperformed others in a relevant domain, as well as that one has consciously considered the perspectives of those (believed to be) outperformed. Because upward comparisons involve recognizing that others are faring better, they may result in those outperformed feeling negative affects, such as anger, shame, resentment, or envy (Smith, 2000). Outperformers who recognize that others are experiencing unfavorable upward comparisons may be aware of such effects and realize that, by creating a status discrepancy, unfavorable comparisons pose a threat to comparers' well-being or self-worth. When this is the case, the second of the preceding requirements is satisfied.

The final requirement associated with STTUC is that outperformers experience some level of concern with regard to (a) the well-being of a comparer, (b) their relationship with a comparer, or (c) anticipation that a comparer may attempt to retaliate as a result of feeling threatened. Outperformers may be concerned for the well-being of others because they perceive that their own achievements have created emotional discomfort in others (M. Bennett & Dewberry, 1989). Moreover, the individual desire to maintain favorable interpersonal relationships may result in a concern for interactions outperformers have with comparers, as the status discrepancies experienced by those making upward comparisons have the potential to

threaten relational bonds (Baumeister & Leary, 1995). And, finally, outperformers may be concerned that such discrepancies may prompt retaliatory behavior; thus, making their own well-being and self-worth a central focus. Experiencing any of these concerns will increase the intensity of an outperformer's own emotional discomfort and, in turn, sensitivity about being the target of threatening upward comparisons (STTUC).

In sum, perceiving oneself as the target of an upward comparison can be emotionally discomfoting. Exline and Lobel (1999) have proposed that the impact of various dispositional, perceptual, and situational factors on the likelihood that outperformers will engage in actions to either reduce or avoid being the target of threatening upward comparisons will be mediated by outperformers' sensitivity to being a targeted comparison. Four antecedent factors and four theoretically relevant consequences of the emotional discomfort associated with being the target of a threatening upward performance comparison, selected for investigation in the present dissertation, are described below. In that the proposed set of relationships (presented in Figure 1) is limited in scope, not being intended to test a fully specified model, the term “conceptual scheme” rather than “model” is used in the following discussion.

### **STTUC Antecedents**

#### Dispositional Factors

Interpersonal Sensitivity. Research indicates that outperformers who are more interpersonally attuned are more likely to be aware of the possible negative consequences their outperformance poses for others (Exline & Lobel, 1999). Individuals have a fundamental desire for interpersonal attachments, referred to as a *need to belong* or a *need for affiliation*, and their behaviors will be so motivated (Baumeister and Leary, 1995). “[T]o enhance the prospect that one will be liked and accepted, a person with a high need for affiliation tries to appease others by

doing whatever it is that is perceived to be valued by the other party” (O’Malley & Schubarth, 1984, p. 356). When motivated by this need, individuals are generally more concerned for the self than for others, because their focus is on satisfying their own need for interpersonal attachments. Those who have stronger interpersonal needs are more highly motivated to maintain favorable relationships with others. These needs have been discussed in the social-psychological literature as *dependency*, or “the relative overemphasis on interpersonal relatedness” (Santor, Zuroff, Mongrain, & Fielding, 1997, p. 165), the need for approval or acceptance (e.g., Cramer, 1993; 2003), and *sociotropy*, defined as an excessive concern about interpersonal relationships (Robins, Ladd, Welkowitz, Blaney, Diaz, & Kutcher, 1994).

Sociotropy is a dimension of personality that is associated with vulnerability to depression due to the intense importance sociotropes places on their relationships with others. This dissertation will focus on one particular dimension of sociotropy. Sato (2003) refers to this dimension as *interpersonal sensitivity*. It represents a dispositional fear of causing harm to others and, in turn, being rejected or criticized. Interpersonal sensitivity may affect the likelihood that outperformers will be concerned about possible negative consequences their superior achievements may have on others. Those who are by nature more interpersonally sensitive are more anxious about being liked (Sato, 2003) and, thus, are more concerned about maintaining relationships with others.

Hypothesis 1: Outperformers’ levels of interpersonal sensitivity will be positively related to STTUC.

Empathic Concern. Empathic concern evokes some of the same responses in situations of outperformance as does interpersonal sensitivity, but for different underlying reasons. Interpersonal sensitivity will increase outperformers’ desire to protect themselves and their

relationships in the face of being the target of a threatening upward comparison. By contrast, empathic concern may affect the degree to which outperformers consider the well-being of others (Davis, 1983). Empathic individuals experience cognitive understanding and affective responses to others' emotions (Oswald, 1996). Level of empathic concern can, therefore, be expected to affect the likelihood that outperformance will result in concern about how others may be affected. Individuals with high empathic concern have a tendency to recognize and understand the feelings of others and to react when others are in distress (Davis, 1994). Empathic concern in outperformers should increase their regard for others and, thus, their desire to limit others' negative reactions to the status discrepancies associated with being outperformed.

Hypothesis 2: Outperformers' levels of empathic concern will be positively related to STTUC.

### Perceptual Factor

Competitive Psychological Climate. Brown, Cron, and Slocum (1998) distinguish between the actual structural competitiveness of an organization's environment and its competitiveness as perceived by employees. Accordingly, they differentiate between what they refer to as *psychological climate* (i.e., an organization's climate as perceived by its employees) and *competitive psychological climate* (i.e., "the degree to which employees perceive organizational rewards to be contingent on comparisons of their performance against that of their peers," p. 89). In a study of perceived competitiveness of learning environments, Mitchell (1996) concluded that competition forces individuals to evaluate themselves in relation to others (i.e., to make social comparisons), and that they are more likely to perceive a threat to their sense of self in such situations. Competitive environments foster a drive to achieve more in relation to others (Kohn, 1992), in essence creating a zero-sum situation in which the achievements of one are at

the expense of others. Accordingly, when an environment cultivates competitiveness, individuals are encouraged to primarily strive for success rather than be concerned with their impact on others. This type of environment may foster negative responses from those who are less successful. In fact, Moos (1979), in a study of social-living environments, found that competitive academic settings were positively related to increased stress, strain, and physical symptoms. In addition, he found that students who did not succeed in competitive environments were more likely to continue to perform poorly and try to sabotage others' successes.

An environment's perceived competitiveness would, thus, be expected to influence the likelihood that outperformers will expect negative peer reactions, such as attempts at retaliation or sabotage. As previously noted, competitive environments tend to pit individuals against each other in their efforts to achieve. In such environments, individual success is determined relative to others. Consequently, social comparisons are a necessary tool for self-judgments (Brown et al., 1998). Competition may foster envy and resentment by creating perceptions of restricted access to desired outcomes that some receive at the expense of others (Kohn, 1992). These perceptions may lead outperformers to anticipate greater negative peer reactions in response to their successes than they would in more cooperative, win-win environments. Outperformers who believe they are the targets of threatening upward comparisons recognize that they have performed better than others and, if this occurs in a competitive situation, they may experience distress resulting from the effects competition has on highlighting their achievements relative to others. In essence, competitive environments would be expected to increase the likelihood that outperformers will perceive that they are targets of threatening comparisons and be concerned for themselves.

Hypothesis 3: Outperformers' competitive psychological climates will be positively related to STTUC.

#### Situational Factor

Actual Threat Experienced. When the outperformed engage in upward comparisons and, consequently, experience negative affect that may be associated with being outperformed, the likelihood that outperformers perceive the reality of such threats should increase. The outperformed may enact various responses to the threat they experience from engaging in upward comparisons, and these responses may be detected by outperformers. These responses include changes in mood (Aspinwall & Taylor, 1993), reduced interactions with outperformers (Salovey & Rodin, 1984), and derogation of outperformers' achievements (Cialdini & Richardson, 1980).

Hypothesis 4: The extent to which the outperformed experience threat as a result of conducting upward comparisons will be positively related to outperformers' STTUC.

### **STTUC Consequences**

#### Behavioral Responses

Appeasement. A negative consequence that may be associated with STTUC is embarrassment at having outperformed others and, thus, causing others to perceive themselves as inferior (M. Bennett & Dewberry, 1989). Outperformers may also experience what is referred to as *empathic embarrassment*, or recognizing that underperformers are embarrassed because of their lesser achievements and, in turn, empathically sharing those feelings (Miller, 1987). In an effort to counteract the effects of their achievements, outperformers may attempt to dissipate such "embarrassment" by offering to help others. In a study of behavior toward others in stressful situations, Apsler (1975) found that embarrassment was associated with increased offers

of help. Such offers may be aimed at improving an outperformer's outward image through a show of selflessness or altruism. Moreover, helping others may demonstrate that outperformers are willing to share their achievements and are not boastful.

Actions taken by outperformers that are aimed at reducing the potential threat posed by outperformance as a result of social comparisons are referred to as *appeasement behaviors*. In the face of upward comparisons, outperformers may try to appease underperformers for two reasons: (a) they feel that it will help to limit the impact on underperformers' self-concepts or (b) they are concerned about negative consequences for their personal relationships with those who have been outperformed. Appeasement behaviors may include any act intended to gain the goodwill of others (O'Malley & Schubarth, 1984). Examples of such behaviors include self-deprecating remarks (Exline & Lobel, 2001), sharing of rewards (Geyer & Exline, 2004), and modest self-presentation (Geyer & Exline, 2003).

Modest self-presentation, in particular, has been studied as a strategy utilized by gifted students to overcome the social stigma of being superior to their peers (Cross et al., 1991), as well as by women to present themselves in a more feminine manner or to maintain a desired self-image (Berg, Stephan, & Dodson, 1981). Daubman et al. (1992) found evidence that women's modesty more often stems from a concern for protecting others' self-esteem in the face of negative social-comparison information. Regardless of whether this tactic is used for the protection of the self or of others, individuals experiencing discomfort as a result of being the target of an upward comparison may feel the need to make cognitive choices as to how to present themselves in terms of likeability, dominance, intelligence, potency, or morality (Vonk, 2001). Modesty and downplaying the importance of achievements are especially prominent in how

others perceive outperformers and, thus, are often used to influence self-presentations (Schlenker & Leary, 1982).

In a study of the effects of sociotropy in outperformance situations, Geyer and Exline (2003) found that university undergraduates who were more highly motivated to maintain favorable social relationships (i.e., sociotropes) were more likely to choose appeasing behaviors (i.e., prize-sharing) when they outperformed others in a competitive word game. Appeasement behaviors, such as modest self-presentation, are chosen out of a concern about social disapproval or a desire to protect the feelings or self-images of those outperformed. It has been shown that self-presentational tactics were used most often in the presence of colleagues (as opposed to all others types of acquaintances, such as subordinates and family members). Further, such tactics have likewise been shown to be used most frequently with an ingratiation motive (to smooth social interaction or make others feel comfortable; Vonk, 2001). In these ways, outperformers have been shown to use appeasement behaviors as a means of alleviating their concerns about the reactions others will have to their achievements. Because appeasement is a means by which individuals can satisfy and make others happy, it is reasonable to expect it will be used by outperformers experiencing STTUC.

Hypothesis 5: STTUC will be positively related to outperformers' use of appeasement behaviors.

Avoidance. Because face-to-face contact with those they have outperformed is likely to increase their awareness of the discomfort they have caused others (Exline & Lobel, 1999), outperformers experiencing STTUC may also engage in avoidance behaviors as a means of easing their anxiety. "People feel burdened, frightened, awkward, or sad when interacting with those who are suffering or distressed, thus leading to avoidance of such contact" (p. 320).

Avoiding direct contact with others in a workplace may not be an option, but outperformers can avoid situations that highlight their superior achievements by refraining from discussing their performance or by changing the subject or leaving when their performance is being discussed (Exline & Lobel, 2001). The highlighting of outperformers' achievements through contact or discussion can potentially pose a threat to their relationships with those outperformed. Therefore, it is reasonable to expect that outperformers experiencing STTUC will choose to avoid such contacts or discussions. Avoidance behaviors act to shield both outperformers and those they have outperformed from possible awkward or hostile exchanges, thus, helping to ease any concerns outperformers may have regarding negative peer reactions to their achievements.

Hypothesis 6: STTUC will be positively related to outperformers' use of avoidance behaviors.

### Affective Responses

Propensity for Socially Motivated Underachievement. Fear of success is described by Tresemer (1977) as a motive to avoid high performance because of the expectation that negative consequences will result from successful achievements. Hyland (1989), however, theorizes that fear of success is not itself a motive, but rather an indication that individuals are experiencing conflicting goals – those of success and those of maintaining interpersonal relationships. In other words, if employees perceive that workplace success will conflict with their desire to maintain coworker relationships, they may be motivated to avoid success (see Schnitzer, 1977, for evidence of this phenomenon). Interpersonal relationships may be more important to some individuals than maintaining outperformer status (Santor & Zuroff, 1997). For example, in a study of university students successfully performing a task in the presence of a classmate who was not, the successful students were found to “let up” on performance (White et al., 2002). In

discussing this outcome, White et al. concluded that “people sometimes purposefully underachieve out of concern for others or a desire to maintain relationships” (p. 162). This phenomenon is referred to as *socially motivated underachievement* and involves deliberately putting forth less than maximum effort to meet social goals such as alleviating the distress of struggling others, encouraging others, or maintaining good relationships. To the extent that outperformers are concerned their achievements are causing harm (i.e., unfriendly responses or feeling threatened) to others or their interpersonal relationships with others or themselves as a result of social comparison processes, it is reasonable to expect they are more likely to choose behaviors that will prevent such situations in the future.

Hypothesis 7: STTUC will be positively related to outperformers’ propensity for socially motivated underachievement.

Recognition Preference. Outperformers experiencing STTUC are aware of the possible negative consequences of making others feel inferior. As outperformers’ perceptions of possible negative reactions from the outperformed increase, it follows that their anxiety about being successful will also increase. As noted in a study of grade recognition in university classrooms, Exline et al. (2004) found a link between high achievers’ perceptions of possible negative peer reactions and a decreased preference for public recognition of high grades. It is reasonable to expect that outperformers “will want to avoid having their superior achievements highlighted in ways that could elicit envy or other forms of negative sentiment” from others (p. 7).

Hypothesis 8: STTUC will be negatively related to outperformers’ preferences for public recognition.

## **Direct Paths from Antecedents to Consequences**

In addition to predicting STTUC, there is reason to believe that the antecedent variables interpersonal sensitivity, empathic concern, competitive psychological climate, and actual threat experienced by coworkers may have direct relationships with the outcome variables presented in Figure 1.

### Dispositional Factors

Interpersonal Sensitivity. Interpersonal sensitivity represents a dispositional fear of causing harm to others and, in turn, being rejected or criticized. As noted, individuals' levels of interpersonal sensitivity can affect the likelihood that they will be concerned about possible negative consequences their superior performance may have on others. Those who are by nature more interpersonally sensitive are more anxious about being liked (Sato, 2003) and, thus, are more highly motivated to maintain favorable relationships with others. Research suggests that an individual's interpersonal orientation determines one's behavioral choices in the presence of others (e.g., Exline et al., 2004; White et al. (2002). In particular, to maintain favorable interpersonal relationships, individuals with more affiliative needs (i.e., interpersonal sensitivity) will choose behaviors that are of more value to others (O'Malley & Schubarth, 1984). Such behaviors might include appeasement and avoidance, purposeful underachievement, and avoiding their achievements being publicly highlighted. Based on these findings, it is reasonable to conclude that, independent of STTUC, there may be a direct relationship between outperformers' interpersonal sensitivity and the use of avoidance behaviors, the use of appeasement behaviors, the propensity to underachieve, and preference for public recognition.

Hypothesis 9: Outperformers' interpersonal sensitivity will have direct, positive relationships with their use of (a) appeasement and (b) avoidance behaviors, and their (c)

propensity for socially motivated underachievement, and a direct, negative relationship with their (d) preference for public recognition.

Empathic Concern. Empathic concern is an emotional response to others' distress. It includes such feelings as sympathy and compassion and has been shown to evoke altruistic behaviors towards those perceived to be under duress (Batson, Klein, Highberger, & Shaw, 1995). In this regard, Lee and Murnighan (2001) found that higher levels of empathy were positively associated with offers of help and feelings of sympathy for those in need. Empathic feelings have been found to be so strong that they can encourage altruistic efforts in spite of the potential for injustice or immorality (Batson et al., 1995).

Empathic concern likewise involves a desire to limit others' negative emotions (a target benefit) which, in turn, limits displeasure associated with one's own empathic experience of emotions (a personal goal). In that personal goals and target benefits are motives for choosing appeasement and avoidance behaviors (Vonk, 2001), empathic concern should be directly associated with both behaviors. Moreover, desires to alleviate others' distress and to encourage others have been suggested as explanations for underachievement (White et al., 2002). Because empathic concern involves a concern for the well-being of others, it is logical to not only expect a direct relationship to exist between empathic concern and socially motivated underachievement, independent of STTUC, but for a similar direct link to exist between outperformers' levels of empathic concern and other behavioral attempts to alleviate the distress of those who have been outperformed.

Hypothesis 10: Outperformers' empathic concern will have direct, positive relationships with their use of (a) appeasement and (b) avoidance behaviors, and their (c) propensity

for socially motivated underachievement, and a direct, negative relationship with their (d) preference for public recognition.

### Perceptual Factor

Competitive Psychological Climate. It is generally recognized that individuals vary in their assessments of similar features within their employing organization and, thus, are likely to draw distinct personal implications about the prevailing psychological climate (James, James, & Ashe, 1990). These differing assessments contribute to variations in behavioral responses (Brown et al., 1999). In other words, individuals' unique perceptions of an organization's psychological climate will have personal implications for their well-being, and they will in turn choose what they deem appropriate behavioral responses to protect or support their well-being. Because the perceived competitiveness of an organization's climate is related to increased perceptions of threat to sense of self (Mitchell, 1996), it is likely those who perceive their organizational environments as more competitive will focus on behavioral responses aimed at alleviating such threats. For instance, Exline et al. (2004) found that those in competitive situations indicated less preference for public forms of recognition. Avoidance of contact with those who have been outperformed, of discussions about achievements, and of public recognition of achievements are ways of eliminating potentially threatening reactions from others, such as retaliation. Likewise, outperformers may engage in appeasement behaviors to subdue possible hostile feelings on the part of those outperformed. Each of these findings suggests a direct relationship between outperformers' perceptions of an organization's competitive climate and the various outcomes identified in Figure 1.

Hypothesis 11: Outperformers' competitive psychological climates will have a direct, positive relationship with their use of (a) appeasement and (b) avoidance behaviors, and a direct, negative relationship with their (c) preference for public recognition.

#### Situational Factor

Actual Threat Experienced. As previously reasoned, the more the outperformed are threatened by upward comparisons, the more opportunity outperformers will have to recognize their outperformed coworkers' responses to such threats. Outperformers may subsequently choose to engage in behaviors aimed at alleviating their co-workers' feelings of threat and otherwise attempt to avoid confrontations. These behavioral choices may be due to cognitive or affective experiences beyond those associated with STTUC. For instance, one driving force behind outperformers' use of avoidance behaviors could be feelings of aggravation at having recognized others' responses to being outperformed. Although there is limited prior research on which to build, the following hypothesis is offered as tenable.

Hypothesis 12: Actual threat experienced by coworkers will have direct relationships with outperformers' use of (a) appeasement and (b) avoidance behaviors.

## **CHAPTER THREE: PRETEST**

Pretesting of measurement instruments and procedures is generally recommended prior to undertaking a proposed study (Czaja & Blair, 1996). Of particular interest is the potential reliability and validity of measurement scores and the need to verify data-collection requirements and logistical necessities. Pretesting for this dissertation was conducted in a manner similar to that used in previous studies investigating aspects of the STTUC framework; that is, in a laboratory setting and with university undergraduates as participants. This allowed for and provided information relevant to the quality of the dissertation's survey instrument and data-collection techniques (see anon).

### **Sample**

The pretest sample consisted of 180 students enrolled in an undergraduate management course offered under the auspices of the Louisiana State University College of Business. Students voluntarily responded to an online survey and received extra credit for their participation. There were 167 completed surveys for a response rate of 93%. Of this total, 54.5% were male and 44.9% were female. One respondent did not indicate gender. The majority (63.5%) of respondents held junior standing (60-91 credit hours), followed by 32.3% seniors (92+ credit hours), and 3% sophomores (30-59 credit hours). Just over one percent (1.2%) were graduate students. A majority (66.7%) of respondents indicated that they typically received average grades (A's, B's, and C's) on exams, 28.7% indicated they typically earn A's on exams, and one respondent (0.6%) indicated she was a straight-A student. Very few students indicated they typically do not receive A's on exams (1.2% typically do not receive A's or B's on exams and 1.8% never receive A's on exams). This grade distribution would be expected given the

upper division status of the students as a group and the College's 3.00 (B-average) grade-point entrance requirement.

### **Method**

The online survey presented a scenario asking students to imagine they had received the highest score on an exam of anyone enrolled in a course. Scenarios were the same as those presented in Exline et al.'s (2004) study of students' preferences for public recognition. A universal scenario began with the words, "You are taking a challenging class that has an enrollment of 40 students. You know about half of the students from other classes that you have taken. After the first exam, your instructor returns your exams, and you see that you received an extremely high score. You feel very pleased with your performance. In fact, it turns out that you've received the highest score in the class."

Because students were imagining a hypothetical situation, it was necessary to experimentally manipulate a competitive psychological climate. One of two different levels of classroom competition was randomly presented to all respondents. The competitive scenario read, "Grading in this course follows a curve, as opposed to a straight point system. The curve system is competitive, because each student's grade depends on how well s/he does relative to other students in the class." The noncompetitive scenario read, "Grading in this course follows a straight point system, as opposed to a curve. The straight point system is noncompetitive, because each student's grade depends only on his/her points and does not depend on how well s/he does relative to the other students in the class." Of those students who completed the survey, 50.3% received the competitive scenario, and 49.7% received the noncompetitive scenario. Open-ended feedback was collected from respondents regarding the online survey's ease-of-use,

clarity of instructions, and item wording. This feedback was incorporated in the dissertation's final survey instrument.

### **Measures**

Unless otherwise noted, all measures were anchored by a 5-point response continuum (*1=strongly disagree to 5=strongly agree*) and were summed such that a higher score indicates a greater degree of agreement. A complete listing of items used in the pretest is presented in Appendix 1.

#### Independent Variables

Interpersonal Sensitivity. Interpersonal sensitivity is the dimension of sociotropy related to the fear of hurting others or, in turn, of being rejected or criticized (Sato, 2003). Based on a factor analysis of the items comprising the Sociotropy-Autonomy Scale (SAS; Clark, Steer, Beck, & Ross, 1995) and the Personal Style Inventory (PSI; Robins, Ladd, Welkowitz, Blaney, Diaz, & Kutcher, 1994), both of which were meant to measure the concepts of sociotropy and autonomy, Sato identified two dimensions of sociotropy, *dependence* and *interpersonal sensitivity*. The two dimensions are distinguished by situational factors – dependency concerns emerge when one is alone, whereas interpersonal sensitivity concerns represent anxiety in the presence of others. Given the purpose of the dissertation, the interpersonal sensitivity dimension was judged more appropriate for the present application. Sato's interpersonal sensitivity factor consists of 21 items from both the SAS and PSI. After some items were removed for redundancy, the remaining 18 items were included in the pretest and consisted of statements such as, "I am afraid of hurting other people's feelings," "I do things that are not in my best interest in order to please others," and "I often put other people's needs before my own."

Empathic Concern. A dimension of Davis's (1994) Interpersonal Reactivity Index (IRI) was used to measure outperformers' levels of empathic concern, or "the tendency to experience feelings of sympathy and compassion for unfortunate others" (Davis, 1994, p. 57). This measure consists of seven items, including "I often have tender, concerned feelings for people less fortunate than [I]" and "I would describe myself as a pretty soft-hearted person."

Competitive Psychological Climate. Students who were assigned the competitive scenario were coded 1, whereas students assigned to the noncompetitive scenario were coded 0.

### STTUC

Students were asked to indicate, given the contrasting scenarios, whether they would perceive themselves as targets of upward comparisons, whether they would perceive the comparisons to be threatening to those outperformed, and whether they would be concerned. Due to the absence of a measure for gauging parts of the STTUC construct, items were developed specifically for the purpose of the pretest. For the first condition, students were asked to respond to the item, "To what extent do you agree or disagree that at least one of your classmates would engage in each of the following behaviors?" This was followed by six statements, including, "Compare their own grades to yours" and "Recognize your grades as superior to theirs." For the same six statements, students were then asked, "How many of your classmates do you believe would do each of these things?" (*1 = none to 5 = all*). These items were meant to gauge both the strength of respondents' perceptions that others would be making comparisons and the anticipated frequency at which such comparisons would be made.

In their studies of perceived threat, Exline and her colleagues (Exline & Lobel, 2001; Exline, Single, Lobel, & Geyer, 2004; Geyer & Exline, 2003) used various combinations of 16 adjectives to tap the extent to which outperformers perceived that their high grades induced

negative affect among those outperformed. Therefore, for the second condition respondents were asked to consider the affective responses their classmates would be expected to experience in light of the announcement of who had received the highest grade in the class and to respond to the item, “To what extent do you agree or disagree that at least one of your classmates would feel each of the following?” This item was followed by the 16 adjectives used by Exline and her colleagues to gauge affective responses, including *embarrassed*, *disappointed*, and *irritated*. For the same 16 adjectives, respondents were then asked to respond to, “How many of your classmates do you believe would feel this way?” (*1 = none to 5 = all*).

For the third condition, again following Exline et al. (2004), respondents considered the same 16 adjectives as they responded to the question, “To what extent would you say you would be concerned about this?” (*1 = not at all to 5 = very*). Respondents were instructed to answer *not at all* for any adjective for which they had previously replied *none* (i.e., if they believed none of their classmates would feel *embarrassed*, then they should have indicated that they would not be concerned).

### Dependent Variables

Appeasement and Avoidance. Appeasement behaviors are actions intended to gain the goodwill of others. By contrast, in the present context, avoidance behaviors include actions designed to avert highlighting an award being received, either through refraining from discussing the award or by staying away from others. Drawing on Exline and Lobel’s (2001) work, respondents were presented with the following scenario: “Suppose that after you discovered you had the highest grade in the class, one of your classmates turns to you, shaking his/her head and looking upset. He/she looks at you and says, ‘I can’t believe I did so badly on this exam.’ How likely would you be to respond in each of these ways?” This scenario was followed by eight

appeasement and five avoidance items (*1 = very unlikely to 5 = very likely*). Sample appeasement items are “mention a recent test where you did poorly” and “say that you were just lucky.” Sample avoidance items are “leave the classroom as soon as possible” and “change the subject.”

Propensity for Socially Motivated Underachievement. Socially motivated underachievement, or “purposefully [underachieving] out of concern for others or a desire to maintain relationships,” has previously only been measured through observation in laboratory studies (White et al., 2002, p. 162). As discussed in Chapter Two, this construct is related to fear of success. Behaviorally oriented fear-of-success items from the *mediocrity as a defense against negative consequences of success* dimension of Ho and Zemaitis’s (1981) Concern Over Negative Consequences of Success Scale (CONCOSS; Hong & Caust, 1985) were used to tap this construct. These items are meant to gauge “the presentation of mediocre or substandard work to ensure that others not be threatened” (p. 336) and include, “do less than my very best so that no one would be threatened” and “deliberately do average or mediocre work so as to allow someone else to do better than I.” Respondents were asked to indicate the likelihood that they would engage in each of the behaviors using a 5-point continuum (*1 = very unlikely to 5 = very likely*). Scores were summed such that a higher score indicates a greater propensity for socially motivated underachievement behaviors.

Recognition Preference. Exline and Lobel (2004) investigated the impact of STTUC on university students’ preferences for public recognition of high grades. The preference for recognition items used in the pretest were adapted from their three-item measure. The Exline and Lobel item tapping the most public form of recognition states, “How much would you like it if the instructor, after revealing your name, asked you to raise your hand so that others in the class

would know who you were?” Students were asked to identify, in ascending order, their preferred method of grade recognition: (a) grade unrecognized by my instructor other than being written on my exam, (b) grade recognized in private just between me and my instructor, (c) grade recognized in class by the instructor placing my name on an overhead, or (d) grade recognized in class by the instructor announcing it and having me raise my hand. The most public form of recognition was assigned a weight of 4, the next a 3, and so forth. The option a respondent ranked first was assigned a score of 4, second a score of 3, and so on. Option weights were multiplied by respondents' rankings and the products were then summed to produce a total score ranging from 20 to 30, such that higher scores indicate a stronger preference for public recognition.

#### Control Variables

Variables that might relate to either STTUC or the study's dependent variables were identified as potential control variables. In addition to the preceding measures, personal-report data on gender, classification, and typical exam grades (see supra) received were collected to be used as control variables. Gender has been shown to account for differences in the dependent variable appeasement (Berg, et al., 1981; Daubman, et al., 1992; Heatherington, et al., 1993), with females scoring higher. Similarly, classification and typical exam grades may affect students' levels of experience and comfort with receiving high grades in a university classroom setting and, thus, their scenario responses. Respondents were asked to indicate their classification (*1 = freshman to 5 = graduate student*) and their typical grades (*1 = I never make an A on an exam to 5 = I am a straight A student*).

## **Results**

### Descriptive Statistics and Correlations

Table 3 presents means, standard deviations, reliabilities, and bivariate correlations among all study variables included in the pretest. Significant correlations provided preliminary support for several of the proposed hypotheses. Interpersonal sensitivity, appeasement, avoidance, and propensity for socially motivated underachievement were reliably correlated with STTUC, indicating some support for Hypotheses 1, 5, 6, and 7. The non-significant association between empathic concern and STTUC (H2) may be a result of item wording and is expected to improve when all unnecessary qualifiers are removed from the relevant survey items. Because competitiveness was manipulated in the pretest rather than measured as a perception, as will be done in the actual field study, support for Hypothesis 3 is equivocal. A correlation between actual threat experienced by peers and STTUC (H4) could not be computed because it was impossible to measure actual threat experienced with the scenario-based pretest. The non-significant correlation between STTUC and recognition preference (H8) may be due to the nature of the sample and the grade-recognition scenario. It is expected that results will be different in a more realistic and work-related environment.

### Factor Analysis

Principal-axis factor analysis was performed on all multi-item pretest measures. As a majority of the measures were expected to have a tendency toward a general factor, a quartimax rotation was employed (Pedhazér & Schmelkin, 1991). Both orthogonal (varimax) and oblique (oblimin) rotations were investigated vis-à-vis STTUC because it was expected to possess a more diffuse factor structure. Similar factor solutions were obtained using both methods; therefore, results from orthogonal factor rotations were retained and interpreted.

**TABLE 3: Means, Standard Deviations, and Intercorrelations of Pretest Study Variables**

<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>
1. Interpersonal sensitivity	22.22	5.08	(.81)										
2. Empathic concern	25.33	3.79	.26	(.75)									
3. Competitiveness	.50	.50	-.05	-.09	---								
4. STTUC	23.62	8.05	.28	.18	.03	(.88)							
5. Appeasement	27.16	5.23	.39	.33	-.07	.21	(.80)						
6. Avoidance	11.75	3.47	.10	-.01	-.07	.25	.15	(.72)					
7. Propensity for soc. mot. und.	6.94	2.70	.18	-.01	.07	.16	.11	.17	(.72)				
8. Recognition preference	21.67	2.29	.08	.10	-.07	.02	.03	-.13	-.13	---			
9. Gender	.45	.50	.11	.35	.01	.16	.19	-.08	-.10	-.03	---		
10. Classification	3.32	.55	.03	.06	.01	.04	.15	.00	.05	-.02	.00	---	
11. Grade history	3.25	.58	-.06	-.08	-.04	.13	-.04	.10	-.09	.08	.02	-.08	---

$n = 167$ ; Correlations  $\geq |.16|$  are significant at  $p < .05$ , two-tailed test.

Coefficient-alpha reliabilities appear on the diagonal, where appropriate.

A quartimax rotation of the 18 items measuring interpersonal sensitivity revealed three factors. When only the seven interpersonal sensitivity items originating from the SAS were analyzed, however, only one factor remained. Internal reliability (coefficient alpha) for these seven items was 0.81. All seven items had acceptable factor loadings (ranging from .583 to .779).

The internal reliability (coefficient alpha) of seven items measuring empathic concern was .75. Factor analysis of the items extracted two factors, with the three reverse-scored items loading on the second factor. When all items were forced onto a single factor, the loadings ranged from .500 to .795. Because the reverse-scored items are those that contain the most qualifying adjectives, it is expected that these loadings will improve when the items are stated positively and unnecessary qualifiers are removed. In a factor analysis of the same seven items, Davis (1983) found support for a unidimensional factor structure with acceptable test-retest reliability. Recognizing that reliability and validity of measure scores are sample specific, Davis's results, combined with the present findings, nevertheless suggest that empathic concern is comprised of a single dimension.

The items used to measure the third component of STTUC, concern about the threat one's high grade posed to peers, were reworded for use in the actual field study so as to incorporate the entire STTUC construct (see discussion in Chapter Four). This measure is intended to reflect two distinct but related factors that correspond to concern about threat to peers' own self-worth (i.e., disappointment, anxiety, frustration; factor loadings ranging from .566 to .866) and threat aimed at outperformers (i.e., awkward being around outperformers, hostile toward outperformers, vengeful toward outperformers). In the pretest application, factor loadings ranging from .753 to .926 were extracted. Item 9 did have a "practically significant"

loading (.566) on Factor 2 (loadings above .55 are significant for sample sizes of 100 per Hair, Anderson, Tatham, & Black, 1998, p. 111), but its loading (i.e., .451) on Factor 1 approached this level, as well. This cross loading suggested the need to monitor the factor- analysis results for this item in the field study. The rotated factor matrix for these items is presented in Table 4. Cronbach's alphas for the two factors (threat to other and threat to self) were .93 and .94, respectively.

A factor analysis revealed that the eight appeasement and five avoidance items loaded on separate factors. This provided evidence for a distinction between appeasement and avoidance behaviors. Further analysis was conducted separately for each set of items. The Cronbach's alphas for the appeasement and avoidance items were .80 and .72, respectively. For the appeasement items, an initial quartimax rotation extracted two factors, as evidenced by a scree plot and eigenvalues exceeding 1.0. Items 4, 5, and 8 loaded on Factor 2, Item 3 did not load on either factor. The remaining items loaded on Factor 1. The items loading on the second factor, along with Item 3, depict modest self-presentation or derogation of one's own achievements, whereas the items loading on the first factor represent sympathetic attempts. Varimax rotation of these items yielded similar results. These two factors (modest self-presentation and expressions of sympathy) were retained for the following study. When appeasement data are collected from outperformers' peers (rather than self-reported likelihoods), these measures will be re-evaluated to determine the placement or significance of retaining Item 3.

The five avoidance items returned results similar to appeasement. A scree plot and eigenvalue test again suggested extracting two factors. Items 1 and 2 loaded on one factor (.724 and .731, respectively), and Items 3 and 4 loaded on the second factor (.808 and .730). Item 5 did not load on either factor (.437 for the first factor and .232 for the second factor). Again, varimax

**TABLE 4: Pretest STTUC Rotated Factor Matrix**

	Factor	
	<u>1</u>	<u>2</u>
Embarrassed	.076	<b>.774</b>
Sad	.116	<b>.821</b>
Disappointed	.039	<b>.866</b>
Frustrated	.120	<b>.863</b>
Negative	.298	<b>.796</b>
Irritated	.260	<b>.739</b>
Anxious	.390	<b>.649</b>
Envious	.364	<b>.654</b>
Angry	.451	<b>.566</b>
Awkward	<b>.781</b>	.200
Inferior	<b>.753</b>	.280
Hostile	<b>.863</b>	.148
Intimidated	<b>.745</b>	.285
Wish would fail	<b>.775</b>	.212
Vengeful	<b>.904</b>	.092
Rejecting	<b>.926</b>	.122

rotation yielded similar results. These two factors depict passive (ignore others) and active (leave, change the subject) avoidance. Theoretically, Item 5 should be included with the passive avoidance factor. When appeasement data are collected from outperformers' peers, this measure will likewise be re-evaluated to determine the placement of or significance of retaining Item 5.

The Cronbach's alpha for the five items gauging socially motivated underachievement was .72. Item 3, which was reverse-scored, had the lowest factor loading and, if removed, the internal reliability of the remaining items increases to .78. This item also had the lowest relative

inter-item correlations (ranging from .155 to .236). It was retained, however, until further analysis could be conducted using data from the field study.

## CHAPTER FOUR: METHOD

“Many have pointed out that we work in a recognition-seeking, awards-driven industry. I believe that awards and recognition, though important, can devalue the true rewards of giving it our all. In the end, it's not a race or a competition. Maybe it's not even about achieving the summit. The true joy is in the journey.”

(The Millionaire Real Estate Agent; Keller, Papasan, & Jenks, 2004, pp. 45-46)

### Sample

This dissertation explores theoretical links between interpersonal, perceptual, and situational factors and the affective and behavioral responses outperformers may enact when experiencing STTUC. As previously mentioned, STTUC research has been primarily conducted with university undergraduates as subjects. To expand this research into an applied setting, four real-estate firms located in the Southeast and Northwest United States were selected as study sites. Real-estate agents at these firms who had received an award or had been recognized for their superior sales performance at their firm's previous year's annual award ceremony were the study's focal sample. Outperformers in this setting are easily identified, as they are publicly recognized at company-wide meetings. As all realtors engage in sales, all are eligible for awards that recognize outstanding sales performance. Such recognition is a clear and visible indicator of outperformance and, because it tracks agents' principal source of remuneration, is in a self-relevant domain. As noted, the effects of social comparison are more salient within self-relevant domains, or areas that are important to individuals who have been outperformed (Exline & Lobel, 1999; Festinger, 1954). At the time of the study, the four focal firms consisted of 121 (15.7% award-recipients), 68 (22.1% award-recipients), 224 (66.5% award-recipients), and 92 (37% award-recipients) agents, for a total of 447 agents, 217 of which were award-recipients.

Initial responses were received from 121 of the 217 award-recipients surveyed, for a response rate of 56%. Of these, the majority indicated they were Caucasian (84.3%), followed by 4.2% Native American, 3.4% African American, 0.8% Asian, and 0.8% Pacific Islander. Some 4.2% indicated multiple ethnicities, whereas 2.5% did not indicate their ethnicity. The majority (80%) were also female. Award-recipient ages ranged from 21 to 79 ( $M = 54$ ;  $SD = 11.5$ ). Organization tenure ranged from 5 months to 32 years ( $M = 7.5$ ;  $SD = 7.42$ ). Finally, the responding agents had received from 1 to 100 awards at their present organizations ( $M = 9$ ;  $SD = 11.42$ ).

An analysis of variance revealed no significant differences in age, tenure, number of sales awards received, gender, or ethnicity among the responding agents (see Tables 5 and 6). Contrasts showed that Firm 3 was significantly different in terms of agent tenure, but it was also the largest firm. Tenure, however, was not reliably correlated with any other study variable, except (as would be anticipated) age. The mean agent age for Firm 2 was significantly lower, but Firm 2 was also the newest. Again, age was not significantly associated with any other study variable, excepting tenure.

### **Procedure**

Data for hypothesis testing was gathered through paper-and-pencil surveys sent, either via postal mail or hand delivered, to sales agents (award-recipients and their coworkers) approximately 1-2 months after annual awards ceremonies were held at each firm and returned directly to the researcher. Award-recipient surveys were distributed to those identified as having been recognized for outstanding performance at their firm's annual award ceremony. The award-recipient survey assessed the independent variables *interpersonal sensitivity*, *empathic concern*,

**Table 5: Demographics across Companies**

Company		Gender	YOB	Tenure	# Awards
1	Mean	.33	52.67	66.67	12.33
	<i>N</i>	9	9	9	6
	<i>SD</i>	.50	8.66	76.93	8.36
2	Mean	.27	58.36	49.91	6.00
	<i>N</i>	11	11	11	10
	<i>SD</i>	.47	10.41	33.48	4.27
3	Mean	.18	49.87	106.66	9.27
	<i>N</i>	77	77	76	73
	<i>SD</i>	.39	11.96	98.27	7.63
4	Mean	.17	50.52	71.13	10.04
	<i>N</i>	23	23	23	23
	<i>SD</i>	.39	10.56	63.26	20.86
Total	Mean	.20	50.98	91.52	9.30
	<i>N</i>	120	120	119	112
	<i>SD</i>	.40	11.50	88.42	11.41

**Table 6: ANOVA Results for Demographic Differences across Companies**

		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>
Gender * Company	Between Groups	.26	3	.09	.53	.66
	Within Groups	18.94	116	.16		
	Total	19.20	119			
YOB * Company	Between Groups	724.98	3	241.66	1.87	.14
	Within Groups	15004.99	116	129.35		
	Total	15729.97	119			
Tenure * Company	Between Groups	51583.07	3	17194.36	2.27	.08
	Within Groups	870926.62	115	7573.28		
	Total	922509.70	118			
# Awards * Company	Between Groups	176.87	3	58.96	.45	.72
	Within Groups	14274.81	108	132.17		
	Total	14451.68	111			

*competitive psychological climate*, and *STTUC* and the dependent variables *recognition preference* and *propensity for socially motivated underachievement*, as well as demographic information (viz., gender and age). The final section of the survey asked award-recipients to select from a list of their coworkers five to ten with whom they worked closely and who they thought might be willing to independently complete a short survey and return it directly to the researcher. This first survey was sent to the 217 award-recipients at the four firms. Exactly 121 surveys were received for a response rate of 56% (individual firm response rates ranged from 47-80%). One award-recipient's data were removed due to an incomplete survey.

*Appeasement* and *avoidance* were assessed using a separate survey sent to the identified coworkers. Assessing these dependent variables through coworker surveys helps to avoid common-method bias and limits social desirability responding that may distort personal-report data. In addition to these dependent variables, coworkers were asked to supply the same demographic information as award-recipients, as well as to indicate how frequently they interacted with the relevant award-recipient and how long they have been acquainted. Frequency of interaction (ranging from once per year to 5 or more times per week) was at least once per week for 76.3% of coworker/award-recipient dyads, and average length of interaction was 109 months ( $SD = 128.6$ ; ranging from 1 to 900 months). The coworkers were additionally requested to provide information about their affective responses regarding the awards recently given (*actual threat experienced*). Data for these three study variables were provided by one or more coworkers (1 coworker = 21%, 2 coworkers = 49%, 3 coworkers = 30%) for 118 of the responding award-recipients (for a final response rate of 54%). Coworker surveys were distributed and collected using the same procedure as that for award-recipient surveys. Award-recipients and their coworkers were assured confidentiality. Other information for all

respondents, including job titles, organization tenure, award history, award level, and addresses, was collected from archival records, where available.

### **Measures**

The measures applied in the pretest (see Chapter Three) were used in the actual field study, with changes noted below. With the exception of recognition preference, gender, and tenure, all measures were anchored by a 5-point response continuum (*1=strongly disagree* to *5=strongly agree*) and were averaged such that a higher score indicates a greater degree of agreement. A list of survey items is presented in Appendices 2 and 3.

#### Independent Variables

Interpersonal Sensitivity. Based on pretest results, the seven interpersonal sensitivity items from the Sociotropy-Autonomy Scale (SAS; Clark, Steer, Beck, & Ross, 1995) were used in the following study. Internal reliability for this measure was  $\alpha = .57$ . Although this reliability estimate is generally considered to be unacceptable, given the early stage of STTUC research and the non-essential nature of the reported results (see Nunnally, 1978, p. 226), it was not considered to be intolerable for the present purpose. Results related to this variable, however, should be interpreted accordingly.

Empathic Concern. A modified version of one dimension of Davis's (1994) Interpersonal Reactivity Index (IRI) was used to measure outperformers' levels of empathic concern. In addition to positively wording the items comprising Davis's (1994) IRI measure of empathic concern, unnecessary qualifiers were removed to avoid confusion in wording. For example, the item, "Sometimes I don't feel very sorry for other people when they are having problems," was recast to read, "I feel sorry for other people when they are having problems." Internal reliability for this measure was  $\alpha = .66$ .

Competitive Psychological Climate. Based on Kohn's (1992) definition of structural competitiveness, Brown et al. (1998) developed a four-item measure of competitive psychological climate for use with salespeople. This measure was used in the field study, as it is considered particularly appropriate for a sales-oriented sample because it gauges the extent to which success of some is at the expense of others, or what Kohn refers to as "mutually exclusive goal attainment" (p. 5). Perceptions of competition are important because individuals may perceive the same environment in different ways, and it is these perceptions that determine behavioral responses. Sample items are, "The amount of recognition you get in this company depends on how your sales rank compared to other salespeople" and "Everybody is concerned with finishing at the top of the sales rankings." Internal reliability for this measure was  $\alpha = .73$ .

Actual Threat Experienced. Coworkers identified by award recipients responded to modified versions of the same 15 items used to measure award-recipients' STTUC. Whereas STTUC items were meant to gauge perceived threat posed to coworkers, these items were meant to tap actual threat experienced due to comparisons targeted at award-recipients. Thus, the original STTUC items were reworded to match the perspective of the coworkers, who would possibly experience such threats. For example, STTUC Item 1 stated, "To what extent would you say you are concerned that your coworkers feel embarrassed about their own accomplishments as a result of you receiving your recent award(s)?" To assess actual threat experienced, this item was reworded for coworkers and stated, "As a result of the recent award ceremony, I feel embarrassed about my own accomplishments." Bartlett's test of sphericity ( $\chi^2=2,570.62, p<.000$ ) indicated the correlation matrix for these items was appropriate for factor analysis. An oblimin factor analysis resulted in a 2-factor solution (eigenvalues > 1.00) accounting for 62.24% of the item variance. The resulting rotated factor matrix for actual threat is shown in Table 7.

**Table 7: Rotated Factor Matrix for Threat**

		<u>Factor</u>	
		<u>Internal</u>	<u>External</u>
1.	Embarrassed	<b>.569</b>	-.059
2.	Sad	<b>.705</b>	-.040
3.	Disappointed	<b>.755</b>	-.014
4.	Frustrated	<b>.923</b>	.112
5.	Irritated	<b>.916</b>	.099
6.	Anxious	<b>.877</b>	.121
7.	Envious	<b>.512</b>	-.153
8.	Angry	.415	-.321
9.	Inferior	.298	<b>-.521</b>
10.	Intimidated	.363	<b>-.553</b>
11.	Awkward	.037	<b>-.863</b>
12.	Hostile	.118	<b>-.671</b>
13.	Wish would fail	-.071	<b>-.918</b>
14.	Vengeful	-.154	<b>-.986</b>
15.	Rejecting	-.136	<b>-.968</b>

Items with significant loadings (Items 1-7; factor loadings ranging from .512 to .923) on Factor 1 represented internally focused feelings about one's own achievements (i.e., embarrassed, sad, disappointed) and were, thus, labeled *internal threat*. Items with significant loadings (Items 9-15; factor loadings ranging from -.521 to -.986) on Factor 2 represented externally focused feelings, or feelings towards award-recipients (i.e., inferior, intimidated, vengeful). This factor was labeled *external threat*. Item 8, "I feel angry that I did not receive the award I wanted," did not load significantly on either factor and was thus eliminated from further analyses. This item represents a feeling that could be focused either internally towards the self (such as anger at one's lack of effort) or externally towards award-recipients and/or the organization. It is believed

that this item was too ambiguous for clear distinction as internal or external. Internal reliability for these two factors were  $\alpha = .90$  for internal threat and  $\alpha = .91$  for external threat. Each award-recipient's coworker responses to these items were averaged to provide a measure of actual threat experienced by that award-recipient's coworkers.

### STTUC

STTUC is defined as an uncomfortable state resulting from being the target of upward comparisons that are perceived to pose a threat to those making the comparisons. Award-recipients were thus asked to indicate the extent to which they were concerned that their own achievements were causing their coworkers to experience negative feelings. Specifically, award-recipients were asked, "To what extent would you say you are concerned about each of the following?" (*1=not at all concerned to 5=very concerned*), followed by 15 statements (Item 5, "negative," was removed due to its ambiguousness) incorporating the affective item stems used by Exline and her colleagues, e.g., "that your coworkers feel embarrassed about their own accomplishments as a result of the recent award(s) you received?" and "that your coworkers feel envious of your achievements?"

The  $z_{skewness}$  and  $z_{kurtosis}$  values for STTUC items 8 through 15 indicated these items suffer from both negative skewness and kurtosis at the .01 probability level. Recognizing the potential for biased estimates from variables that violate the normality assumption underlying multivariate analyses (Hair et al., 1998) these eight items were removed from further analyses. Principal axes factor analysis was conducted for the remaining 7 STTUC items. Bartlett's test of sphericity ( $\chi^2=703.71, p<.001$ ) indicated the correlation matrix for these items was appropriate for factor analysis. The scree plot indicated a single-factor solution accounting for 59.54% of the variance in the items. The pattern matrix showed acceptable loadings (i.e.,  $> .50$ ) ranging from .636 to

.893 for the 7 items. Internal reliability for STTUC was  $\alpha = .91$ . Future research should attempt to investigate and improve upon this measure of STTUC.

### Dependent Variables

Appeasement and Avoidance. Coworkers identified by each award-recipient were requested to rate the extent to which they believed the award-recipient engaged in appeasement and avoidance behaviors. Pretest item wording was altered to apply to award-recipients in a workplace setting rather than to students. For example, the first avoidance item in the pretest followed a scenario and stated, “leave the classroom as soon as possible,” but was changed to, “leaves the room when the award(s) is(are) brought up.” A factor analysis of avoidance items resulted in a single factor accounting for 64.3% of item variance and item loadings ranging from .722 to .910. Internal reliability for the avoidance items was  $\alpha = .91$ . Factor analysis of appeasement items, on the other hand, had results similar to those obtained in the pretest, with two emergent factors corresponding to modest self-presentation and expressions of sympathy. Bartlett’s test of sphericity ( $\chi^2=468.235, p<.000$ ) indicated that the correlation matrix for these items was appropriate for factor analysis. Items 1 and 4 had insignificant loadings on both factors and were removed. Internal reliabilities for these two factors were  $\alpha = .66$  and  $\alpha = .74$ , respectively. The two factors were negatively correlated ( $r = -.328$ ). See Table 8 for the rotated factor matrix of the appeasement items.

For each award-recipient for whom multiple coworker surveys were provided, each appeasement and avoidance item was averaged across coworker responses. Interrater agreement was assessed by calculating  $r_{wg}$  (James, Demaree, & Wolf, 1984) for each variable.  $r_{wg}$  scores indicate similarity across raters for each award-recipient rated and range from 0 = no agreement to 1 = perfect agreement. Values for  $r_{wg}$  at or above .70 are typically considered acceptable

**TABLE 8: Rotated Factor Matrix for Appeasement Items**

	Factor	
	<u>Modest self-presentation</u>	<u>Sympathy</u>
1. Says s/he was just lucky to have received the award(s)	.288	-.098
2. Reassures others that their performance isn't so bad.	-.072	<b>-.558</b>
3. Talks about how unfair the award distribution was.	<b>.647</b>	.162
4. Gives sympathetic looks to those who did not receive the award(s) they did.	.404	-.369
5. Mentions a recent year when they did not receive any awards.	<b>.517</b>	-.214
6. Tries to cover up their happiness about their award(s).	<b>.805</b>	.073
7. Actively tries to make others feel better about not receiving the award(s) they did.	-.021	<b>-.719</b>
8. Says something sympathetic to those who did not receive the award(s) they did.	.164	<b>-.748</b>

indicators of agreement among raters (see Brown & Hauenstein, 2005, for a discussion of this statistic) and, thus, justify aggregation of raters' scores. Median interrater agreement was .94 for sympathy, .92 for modest self-presentation, and .92 for avoidance. Given potential limitations of the  $r_{wg}$  statistic (viz., scale dependency, sample size dependency, and bias from erroneously assuming a uniform null distribution), an alternative measure of agreement,  $a_{wg}$ , which eliminates these potential problems, was also calculated (Brown & Hauenstein, 2005). Results of these calculations were similar to those above, with medians of .90 for sympathy, .84 for modest self-presentation, and .89 for avoidance.

Socially Motivated Underachievement. The wording for the pre-test items tapping socially motivated underachievement was modified as necessary to address a sales rather than a student sample. For example, pretest Item 5 stated, "try not to get the highest grade in the class so that others might have a chance to get it." In the following study, this item read, "try not to win performance awards every single month so that others might have a chance at them."

Finally, it was noted that Item 3 in this measure was reverse-scored (“try to excel as much as possible, even if it means that my sales record is higher than my coworkers”). Cronbach’s alpha for this measure improved from .51 to .77 when this item was removed.

Recognition Preference. Item wording for this measure was changed from that used in the pretest to be relevant for a sales sample. Award-recipients were asked to identify their preferred method of recognition, in ascending order with regard to preference for public recognition. They were asked to respond to the item “I would prefer that my performance achievements at work . . .” by ranking the following four options in order of preference: (a) went unrecognized, (b) were recognized in private just between me and my supervisor, (c) were recognized in writing such as by placing my name in a company-wide newsletter, or (d) were recognized in a public ceremony that identifies me as a high achiever. The preference ranking award-recipients gave to the most public form of recognition – public, ceremonial recognition – was used to measure this variable. Internal reliability could not be calculated for this rank-ordered variable, but an ANOVA  $F$  test indicated item effects differed from zero ( $F = 46.182, df = 3; p < .000$ ). An estimate of reliability computed for rank-ordered items was  $\sigma_{rel}^2 = .988$  (VanLeeuwen & Mandabach, 2002).

### Control Variables

Gender and Tenure. Gender served as a control variable for reasons discussed in Chapter Three. Regardless of whether employees have received awards, organization tenure may affect their levels of exposure to and comfort with prevailing award systems and, thus, their associated responses. Additionally, the effects of STTUC may be stronger for individuals who are less accustomed to outperforming others. The participating firms were asked to provide information on organization tenure, in months, for both award-recipients and award-recipient listed coworkers, as well as an award history for award-recipients.

Coworkers' demographics (gender and organizational tenure) were used simply for descriptive purposes. Coworkers were also asked to identify the length of their relationships with award-recipients (in terms of months) and the frequency of their contact. This information provided an indication that the coworkers had interaction with award-recipients and a basis for knowledge about their behaviors. Coworkers identified interaction frequency (face-to-face or any other form of communication) ranging from 1 = *once a year or less* to 7 = *five times a week or more* (cf. Marwell & Hage, 1970).

Social Desirability. Because of method effects associated with self-report measures, all respondents in the study were requested to complete the short form of the Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960). The M-C SDS is intended to measure respondents' tendencies to answer survey items in "a culturally appropriate and acceptable manner" (p. 353). Ballard (1992) identified a subset of 13 items from the M-C SDS as an acceptable alternative to the full 33-item measure. The 13 items included in the short form were randomly scattered throughout the survey. These items include "I sometimes feel resentful when I don't get my way," "I'm always willing to admit it when I make a mistake," and "I am always courteous, even to people who are disagreeable." Internal reliability for this measure was  $\alpha = .71$ . Social desirability was significantly correlated with empathic concern ( $r = .225$ ;  $p < .05$ ), but no other study variables.

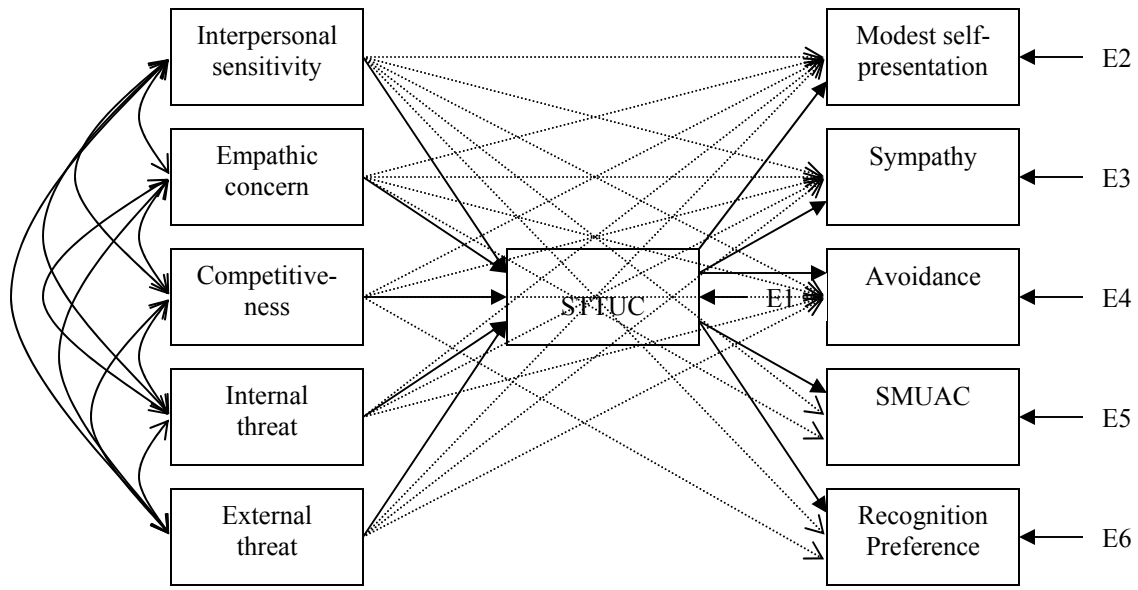
## **Methodology**

Bentler's (2004) EQS structural equations program was used to conduct a path analysis of the conceptual scheme shown in Figure 2. Path analysis was the method chosen for evaluating the proposed conceptual scheme because it allows for the testing of a set of interrelated equations

simultaneously (Hair et al., 1998, p.589). The covariance matrix and estimated reliabilities served as the input for the EQS program.

Given the effective sample size relative to the number of free parameters to be estimated in the conceptual scheme set forth in Chapter 2, the number of parameters is reduced and power is improved through the use of composites rather than multiple indicators. Composites have been shown to provide a close replication of parameter estimates derived from multiple indicators (Liang, Lawrence, Bennett, & Whitelaw, 1990) and, in fact, have been shown to substantially improve model fit over models treating all indicators individually (Landis, Beal, & Tesluk, 2000). To account for random measurement error, the error variance for each construct was set equal to the product of its scale's variance and the quantity one minus its estimated reliability ( $\alpha$ ; Bollen, 1989). Because research has shown that using partially disaggregated over fully aggregated models improves parameter estimates (Coffman & MacCallum, 2005), the full model was tested as a mixed latent-variable model, with the mediator STTUC treated as a latent-variable with seven indicators and averaged composites of all other measures treated as single indicators for each respective construct.

The model was tested with and without direct paths from the predictor variables to the dependent variables. A chi-square difference test between models was used to determine whether the paths were partially or fully mediated by STTUC. The fit of the path model was determined by examining three goodness-of-fit indices: (1) normed-fit index (NFI), which gives an estimate of a model's incremental fit in relation to a null model, (2) non-normed fit index (NNFI), which corrects for model complexity, and (3) comparative fit index (CFI), which avoids small sample bias associated with NFI. Maximum SRMR values of .10 and NFI and CFI approaching unity generally indicate acceptable fit (Kline, 2005, section 6.2).



Dashed arrows indicate direct paths from independent variables to dependent variables.

**Figure 2: Full Path Model**

## CHAPTER FIVE: ANALYSES AND RESULTS

### Descriptive Statistics and Correlations

Variable means, standard deviations, Cronbach's alpha coefficients, and intercorrelations among the study variables are shown in Table 9. All significant correlations are in the hypothesized directions, including correlations between the independent variables empathic concern and competitiveness and STTUC ( $r = .20$  and  $.24$ , respectively) and between the independent variable external threat and the dependent variable modest self-presentation ( $r = .20$ ). STTUC is not significantly correlated with any of the dependent variables.

Correlations between potential covariates (i.e., social desirability, gender, tenure) and the study variables range from  $\pm .00$  to  $\pm .22$ , indicating that the data are not substantially contaminated by socially desirable responding and are not confounded by demographic differences. Despite some low to moderate significant correlations among the study variables, multicollinearity does not present a problem. The independent variables were placed into complete equations with each of the dependent variables as an outcome variable, and tolerance levels were all above the suggested  $.10$  minimum (Hair et al., 1998, p. 193).

### Multiple Regression Analyses

Initial analyses for testing Hypotheses 1 through 12 were conducted using multiple regression analysis in SPSS 11.5, with separate analyses conducted for each of the five dependent (e.g., modest self-presentation, sympathy, avoidance, SMUAC, recognition preference) and one mediating (e.g., STTUC) variable. The dependent variables were each regressed on all predictor variables (viz., interpersonal sensitivity, empathic concern, competitive psychological climate, internal threat, external threat) and the mediating variable, and the mediating variable was then regressed on the five predictor variables. The control variables

**TABLE 9: Means, Standard Deviations, and Intercorrelations of Dissertation Study Variables**

<u>Variables</u>	<u>Mean</u>	<u>SD</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>
1. Interpersonal sensitivity	3.17	.52	(.57)													
2. Empathic concern	4.06	.40	.24*	(.66)												
3. Competitiveness	2.94	.87	.10	.06	(.73)											
4. Internal threat	2.11	.55	.05	.13	.13	(.90)										
5. External threat	1.33	.30	-.03	-.16	-.06	.28*	(.91)									
6. STTUC	1.87	.80	.08	.20*	.24*	.06	.12	(.91)								
7. Modest self-presentation	1.95	.68	-.14	-.13	.09	.12	.20*	.06	(.66)							
8. Sympathy	2.31	.83	-.06	-.16	.15	.02	.03	.01	.64*	(.74)						
9. Avoidance	2.82	.95	-.04	.11	.14	.18	-.09	-.02	.48*	.27*	(.91)					
10. SMUAC	1.26	.47	-.07	-.00	.01	.12	.02	.10	.18*	.03	.04	(.77)				
11. Recognition preference	3.42	.95	.02	-.18	-.17	-.10	-.05	-.06	-.11	-.09	-.22*	-.11	--			
12. Social desirability	3.52	.48	-.04	.22*	-.06	.05	.00	.13	-.10	-.18	.07	-.11	-.15	(.71)		
13. Gender	.20	.40	-.10	-.19*	-.03	.00	-.06	-.18*	.01	.09	-.01	-.06	-.09	-.01	--	
14. Tenure	92.61	88.77	.07	.14	-.02	.18	.15	.05	.10	.12	.19*	.01	-.13	.12	-.13	--

\* p&lt;.05; n = 118.

Reliabilities appear on the diagonal.

gender, tenure, and social desirability were entered at Step One in all regression analyses with no significant effects. Given this absence of effects and the low bivariate correlations, these variables were thus excluded from further analyses to maximize statistical power and to eliminate the possibility of biased parameter estimates due to the inclusion of unnecessary control variables (Becker, 2005). Table 10 presents the results of the regression analyses. These initial results indicate that competitive psychological climate and empathic concern are positive predictors of STTUC. All results for the dependent variables yielded insignificant regression equations. When insignificant variables were removed from the analyses, however, a significant equation (adjusted  $R^2 = .03$ ,  $p < .05$ ) was found for modest self-presentation, with external threat as a predictor ( $\beta = .20$ ,  $p < .05$ ). Taken together, these results tentatively lend support to Hypotheses 2, 3, and 12(a).

### **Latent-variable STTUC Model**

As described in Chapter 4, path analysis with robust statistics (Bentler, 2004) was used to test the regression equations simultaneously and to test for mediation of relationships between predictor and outcome variables through STTUC (Figure 1). According to the chi-square test, the partially mediated model,  $\chi^2(74) = 261.51$ ,  $p < .00001$  (NFI = .96; NNFI = .95; CFI = .97), fit the data significantly better than the fully mediated model,  $\chi^2(99) = 346.71$ ,  $p < .00001$  (NFI = .96; NNFI = .96; CFI = .97), indicating that the partially mediated model in which there were direct paths from the predictor variables to the dependent variables is preferred over the fully mediated model with no direct paths from the predictor variables to the dependent variables.

Effects decomposition for the partially mediated path model is shown in Table 11. Whereas there are significant ( $p < .05$ ) correlations between two predictor variables, empathic concern and competitiveness, and STTUC ( $r = .31$  and  $r = .34$ , respectively), there are no

**Table 10: Standardized Beta Coefficients from Multiple Regression Analyses**

Predictor variable	Outcome variable					
	STTUC	Modest self-presentation	Sympathy	Avoidance	SMUAC	Recognition preference
Interpersonal sensitivity	.02	-.13	-.04	-.08	-.08	.08
Empathic concern	.21*	-.10	-.17	.09	-.03	-.20 <sup>†</sup>
Competitiveness	.24*	.10	.17	.13	-.03	-.17 <sup>†</sup>
Internal threat	-.04	.08	.02	.19 <sup>†</sup>	.14	-.03
External threat	.18 <sup>†</sup>	.16	.01	-.11	-.04	-.08
STTUC	---	.04	.00	-.06	.12	.02
<i>R</i>	.34*	.29	.24	.28	.18	.27
<i>R</i> <sup>2</sup>	.12*	.08	.06	.08	.03	.07
Adjusted <i>R</i> <sup>2</sup>	.08*	.03	.00	.02	-.02	.02

*n* = 118.

<sup>†</sup>*p* < .10; \**p* < .05; \*\**p* < .01; \*\*\**p* < .001.

significant correlations between STTUC and the outcome variables. External threat's relationship ( $r = .23$ ) with STTUC approached significance ( $p = .09$ ), whereas internal threat had a significant relationship ( $r = -.29$ ) with STTUC, but in the opposite direction hypothesized. Significant, direct relationships between the following predictor and outcome variables were found: (a) competitiveness and recognition preference ( $r = -.24$ ), (b) internal threat and avoidance ( $r = .38$ ), and (c) external threat and modest self-presentation ( $r = .44$ ); as well as a marginally significant ( $p = .08$ ), direct relationship between (d) external threat and sympathy ( $r = .31$ ). Empathic concern was found to have marginally significant relationships with sympathy [ $r = -.23$ ;  $p = .07$ ] and recognition preference ( $r = -.24$ ;  $p = .09$ ), though the relationship with sympathy was in the opposite direction as hypothesized. There were no significant indirect effects through STTUC.

### Model Trimming

In the partially mediated model, there were no significant paths between either the exogenous dispositional variable interpersonal sensitivity and any of the endogenous variables or

**Table 11: Effects Decomposition for Partially Mediated Latent-variable STTUC Path Model**

Causal Variable	Endogenous Variables																	
	STTUC			Modest self-pres.			Sympathy			Avoidance			SMUAC			Recognition pref.		
	Unst.	SE	St.	Unst.	SE	St.	Unst.	SE	St.	Unst.	SE	St.	Unst.	SE	St.	Unst.	SE	St.
Interpersonal sensitivity																		
Direct effect	-.049	.245	-.028	-.187	.210	-.133	.054	.268	.030	-.191	.296	-.083	-.106	.173	-.100	.197	.391	.072
Total indirect effects	--	--	--	-.003	.014	-.002	.000	.006	.000	.008	.040	.003	-.004	.019	-.004	-.003	.016	-.001
Total effect	-.049	.245	-.028	-.190	.210	-.135	.054	.268	.030	-.184	.295	-.079	-.110	.173	-.104	.194	.389	.071
Empathic Concern																		
Direct effect	.657*	.309	.314	-.214	.271	-.125	-.510 <sup>†</sup>	.348	-.231	.569	.383	.202	-.053	.223	-.041	-.797 <sup>†</sup>	.508	-.239
Total indirect effects	--	--	--	.037	.064	.022	-.004	.079	-.002	-.105	.104	-.037	.051	.056	.040	.035	.119	.011
Total effect	.657*	.309	.314	-.177	.254	-.103	-.514 <sup>†</sup>	.326	-.232	.464	.358	.165	-.002	.210	-.002	-.762	.473	-.229
Competitiveness																		
Direct effect	.302**	.106	.335	.083	.094	.113	.193	.120	.203	.202	.132	.167	-.022	.077	-.040	-.346*	.175	-.240
Total indirect effects	--	--	--	.017	.029	.023	-.002	.036	-.002	-.048	.044	-.040	.023	.025	.042	.016	.054	.011
Total effect	.302**	.106	.335	.100	.086	.136	.192 <sup>†</sup>	.110	.201	.154	.121	.127	.002	.071	.003	-.329*	.160	-.229
Internal threat																		
Direct effect	-.275*	.163	-.285	.211	.142	.267	.275	.181	.269	.488*	.199	.375	.148	.117	.250	-.039	.264	-.025
Total indirect effects	--	--	--	-.016	.027	-.020	.002	.033	.002	.044	.045	.034	-.021	.025	-.036	-.015	.050	-.010
Total effect	-.275*	.163	-.285	.195	.136	.247	.277	.174	.271	.532**	.191	.409	.127	.113	.214	-.053	.253	-.035
External threat																		
Direct effect	.373 <sup>†</sup>	.273	.227	.589*	.237	.438	.533 <sup>†</sup>	.303	.307	.494	.333	.223	-.136	.195	-.135	-.231	.441	-.088
Total indirect effects	--	--	--	.021	.038	.016	-.002	.045	-.001	-.059	.067	-.027	.029	.036	.029	.020	.068	.008
Total effect	.373 <sup>†</sup>	.273	.227	.610**	.230	.454	.531 <sup>†</sup>	.294	.305	.434	.323	.197	-.108	.190	-.107	-.211	.427	-.081
STTUC																		
Direct effect	--	--	--	.057	.094	.069	-.006	.120	-.006	-.159	.134	-.119	.078	.078	.127	.054	.175	.034
Total indirect effects	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total effect	--	--	--	.057	.094	.069	-.006	.120	-.006	-.159	.134	-.119	.078	.078	.127	.054	.175	.034

Note. Unst., unstandardized; St., standardized.

<sup>†</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ .

the endogenous affective-response variable SMUAC and any causal variable. In addition, 11 of 20 Wald test suggestions for dropping parameters (Kline, 2005, p. 148) were associated with these two variables. Given this lack of results and interpersonal sensitivity's low internal reliability, these two variables were removed from further analyses for the sake of parsimony. Future research should attempt to improve upon the measurement of these constructs and seek further evidence that they are unrelated to the study variables. Goodness-of-fit statistics for the null and partially-mediated models are shown in Table 12, and the model with these two variables removed is shown as Model A.

Using the EQS output for Model A, non-significant Wald statistics were used to determine appropriate paths to be removed for model trimming. As a result, covariances among the error terms of the endogenous variables were removed, with the exception of the error terms among the three coworker-rated variables avoidance, modest self-presentation, and expressions of sympathy. Additionally, covariances among the exogenous variables' error terms as suggested by insignificant Wald statistics were also removed. Goodness-of-fit statistics for the resulting model are shown in Table 12 as Model B. There were no significant changes in  $\chi^2$  between Models A and B, so the most parsimonious model was retained. Parameter estimates for Model B are shown in Figure 3. Again, there were no significant paths between STTUC and the outcome variables.

Empathic concern and competitiveness had direct, positive relationships ( $r = .30$  and  $.32$ , respectively) with STTUC. Unexpectedly, internal threat had a significant, negative relationship ( $r = -.25$ ) with STTUC, which was in the opposite direction as hypothesized. External threat had a direct, positive relationship ( $r = .44$ ) with the modest self-presentation component of appeasement. Internal threat's relationship ( $r = .28$ ) with modest self-presentation was

**Table 12: Goodness-of-Fit Summary**

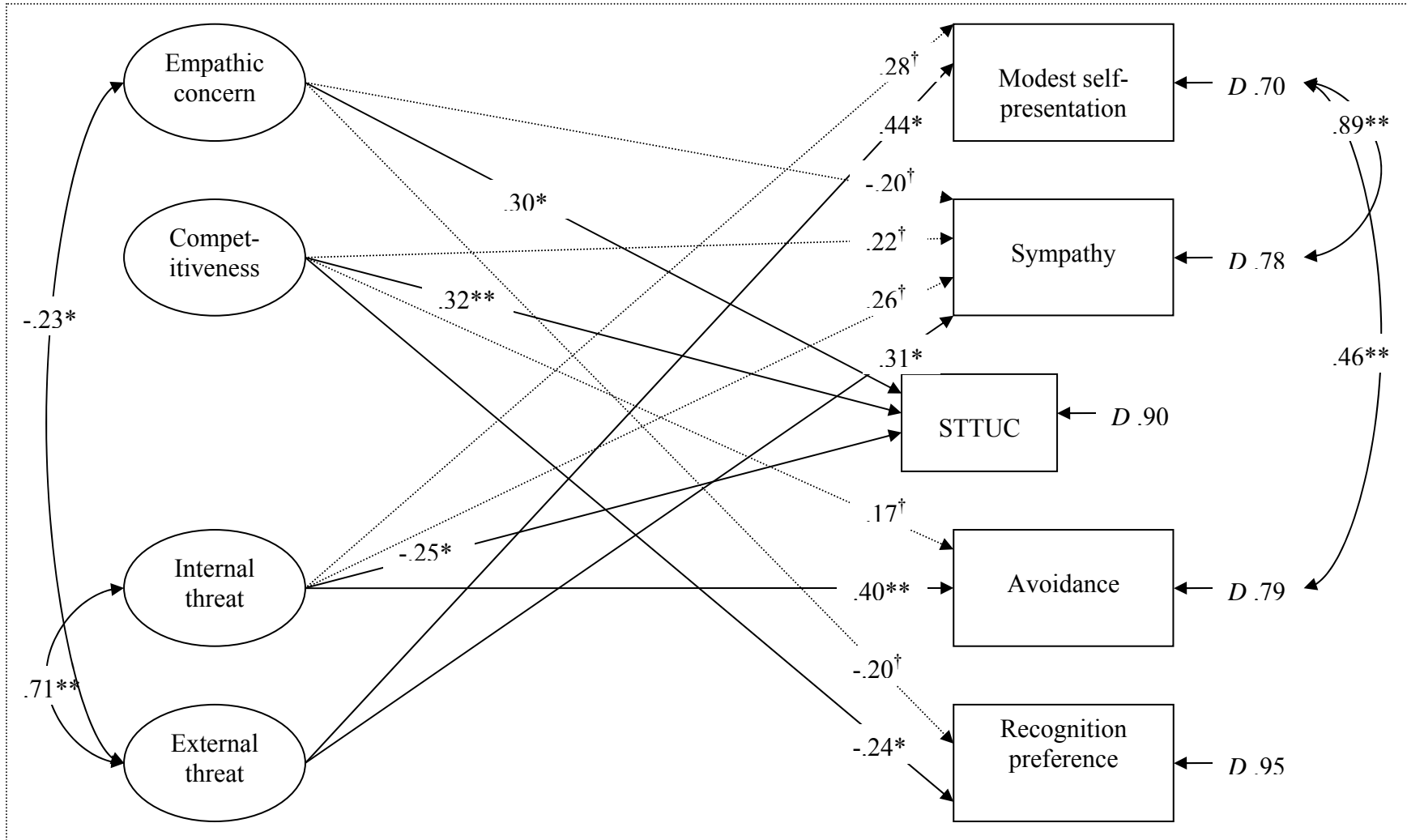
Model	<i>df</i>	$\chi^2$	<i>p</i>	$\Delta df$	$\Delta\chi^2$	<i>p</i>	RMSEA	NFI	NNFI	CFI
Null	146	6,917.85								
Part.-med.	74	261.51	<.001	72	6,656.34	<.001	.15	.96	.95	.97
A	62	245.18	<.001	12	16.33	<.250	.16	.96	.95	.97
B	70	245.60	<.001	8	.42	<.999	.15	.97	.96	.98

RMSEA = root mean square error of approximation; NFI = normed fit index; NNFI = non-normed fit index; CFI = comparative fit index.

approaching significance ( $p = .09$ ). External threat had a direct, positive relationship ( $r = .31$ ) with the sympathy component of appeasement. Empathic concern, competitiveness, and internal threat had relationships ( $r = -.20, .22, \text{ and } .26$ , respectively) approaching significance ( $p = .08, .06, \text{ and } .08$ , respectively) with expressions of sympathy. Internal threat had a direct, positive relationship ( $r = .40$ ) with avoidance. The relationship between competitiveness and avoidance was approaching significance ( $p = .09$ ). Competitiveness had a direct, negative relationship ( $r = -.24$ ) with recognition preference, and the relationship of empathic concern with recognition preference ( $r = -.20$ ) was approaching significance ( $p = .09$ ).

### Summary

These results do not support Hypotheses 1 and 9, which involve the interpersonal sensitivity construct. All analyses support the relationships between empathic concern and STTUC (H2) and between competitive psychological climate and STTUC (H3). Hypothesis 4 was not supported, as a marginally significant relationship was found between external threat and STTUC only, and an unexpected negative relationship was found between internal threat and STTUC. Hypotheses 5 through 8 predicting relationships between STTUC and the outcome variables were not supported. Empathic concern's direct relationship with recognition preference and its relationship in the opposite direction as hypothesized with sympathy (H10) were both



Note. Dashed lines indicate relationships approaching significance at the  $p < .10$  level.  $D$  represents disturbance terms for endogenous variables.  
 $^\dagger p < .10$ ;  $*p < .05$ ;  $**p < .01$ .

**Figure 3: Model B Path Analysis Results**

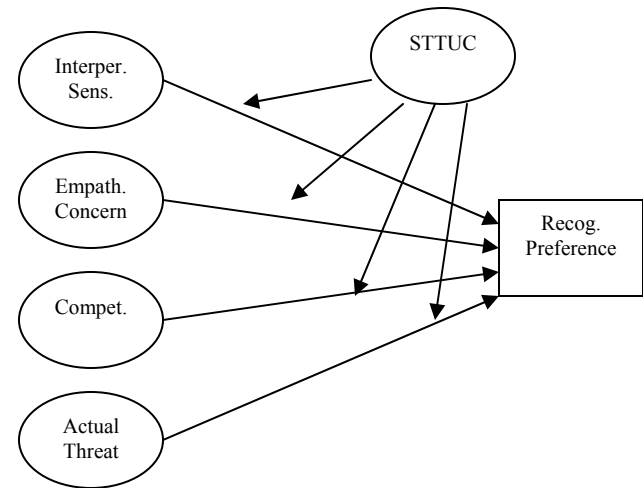
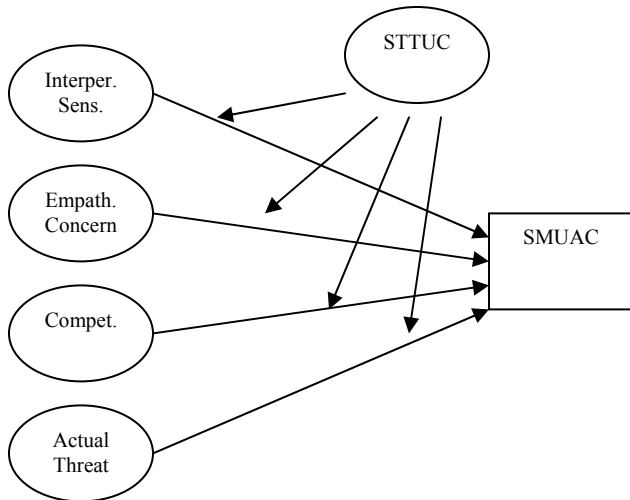
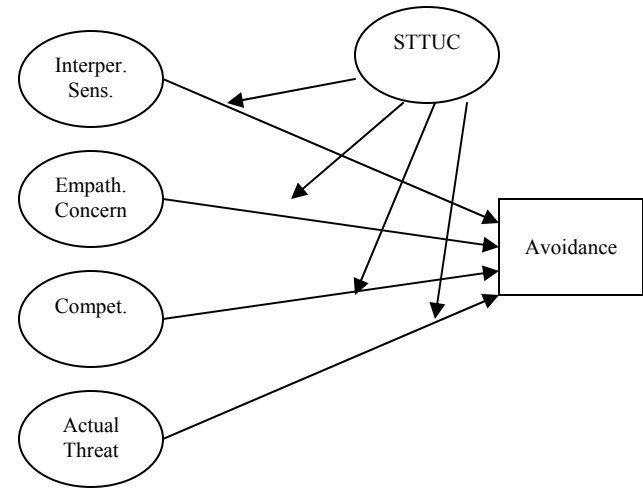
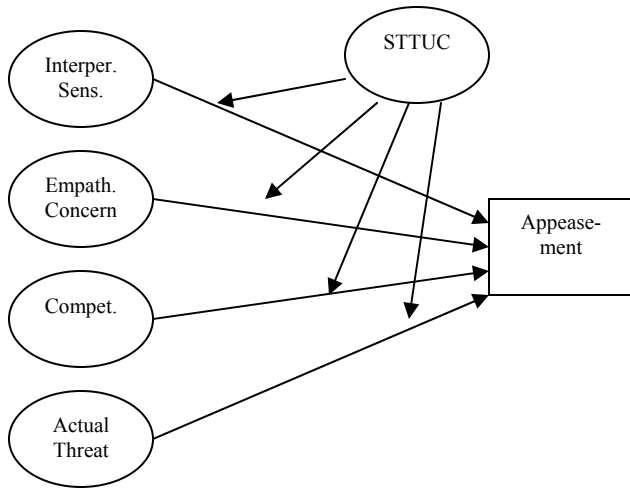
marginally significant. Some evidence was found for direct relationships between competitive psychological climate and sympathy, avoidance, and recognition preference (H11), though sympathy and avoidance were marginally significant. These results lend support to Hypothesis 12 predicting a relationship between coworker threat and the outcome variables, with significant findings for avoidance, modesty, and sympathy.

## **CHAPTER SIX: CONCEPTUAL RESPECIFICATION**

Given the failure of the previous analyses to support several of the a priori hypothesized relationships between STTUC and the proposed outcome variables, the conceptual scheme presented in Figure 1 was respecified to explore the possibility that STTUC serves as a moderator variable for the relationships between the predictor and outcome variables. The unexpected findings, such as the lack of results for the variables interpersonal sensitivity and SMUAC and the nonexistent direct relationships between STTUC and the outcome variables, suggest the possibility for moderated relationships in the conceptual scheme (Baron & Kenny, 1986). To explore this possibility, supplemental analyses were conducted in which STTUC was hypothesized to interact with the predictor variables to influence the outcome variables (see Figure 4 for the revised conceptual scheme). This chapter presents the new conceptual scheme, post-hoc hypotheses, and results of these supplemental analyses.

### **STTUC as a Moderator**

Self-regulation theory (Bandura, 1991), when applied to outperformance, suggests that the anticipation of social consequences can lead outperformers to regulate their subsequent actions. Through the first function of the self-regulation process, self-monitoring, it is reasonable to expect that outperformers will recognize their achievements in terms of “the conditions under which they occur and the immediate and distal effects they produce” (p. 250). It is likewise logical to expect that they will next form judgments of these achievements through comparisons with standards garnered from the reactions or achievements of others and will choose their self-responses accordingly. Following self-regulation theory, outperformers would be expected to be inclined to choose actions that will result in positive self-reactions.



**Figure 4: Revised Conceptual Scheme**

The discomfort associated with STTUC occurs out of outperformers' concern about the reactions of the outperformed. As noted previously, the focus of this concern can be the self, one's relationships, or the outperformed, and the intensity of STTUC experienced is contingent upon the extent of outperformers' concern (Exline & Lobel, 1999). More intense STTUC, therefore, indicates outperformers are engaged in self-regulation because they have considered their achievements in light of the social reactions of others (i.e., self-monitoring), and this information will likely be used to form judgments of their own actions. The focal outcomes (i.e., appeasement, avoidance, SMUAC, recognition preference) represent regulated action preferences, as they are methods of manipulating the real or anticipated reactions of those outperformed. It follows, therefore, that the relationships between the predictors and the outcomes in this study should be more salient for outperformers experiencing STTUC than for those who are not fully engaged in this self-regulatory process. The following post-hoc hypotheses were thus tested.

#### STTUC and Interpersonal Sensitivity

As stated in Hypothesis 9 of the initial conceptual scheme, outperformers' levels of interpersonal sensitivity were expected to increase their use of appeasement and avoidance behaviors and SMUAC and to decrease their preference for public recognition. These relationships are expected to be moderated, however, by STTUC. As mentioned previously, interpersonal sensitivity represents a dispositional fear of causing harm to others and, in turn, being rejected or criticized (Sato, 2003). Outperformers with this disposition should be more likely to engage in the study's outcomes, which represent actions to deflect such fears, if they recognize their achievements as potentially causing others harm. If interpersonally sensitive

outperformers are not experiencing STTUC, then they have not made this recognition and, therefore, have no impetus for choosing fear-deflecting actions.

Hypothesis 13: STTUC will moderate the relationships between interpersonal sensitivity and (a) appeasement, (b) avoidance, (c) SMUAC, and (d) recognition preference, such that the relationships will be stronger for outperformers who are experiencing more STTUC.

#### STTUC and Empathic Concern

As stated in Hypothesis 10 of the initial conceptual scheme, outperformers' levels of empathic concern, which represents an emotional response to others' distress (Davis, 1983), were expected to increase their use of appeasement and avoidance behaviors and SMUAC and to decrease their preference for public recognition. These relationships are also expected to be moderated by STTUC. Similarly to interpersonal sensitivity, then, outperformers with this disposition should be more likely to engage in the hypothesized outcomes, which represent actions to reduce the distress of others, if they recognize their achievements as potentially causing others to experience distress. If outperformers with empathic concern are not experiencing STTUC, then they have not recognized that their achievements may potentially cause others to experience distress and, therefore, have no impetus for choosing distress-reducing actions.

Hypothesis 14: STTUC will moderate the relationships between empathic concern and (a) appeasement, (b) avoidance, (c) SMUAC, and (d) recognition preference, such that the relationships will be stronger for outperformers who are experiencing more STTUC.

### STTUC and Competitiveness

As stated in Hypothesis 11 of the initial conceptual scheme, outperformers' competitive psychological climates, which are related to increased perceptions of threat to sense of self (Mitchell, 1996), were expected to increase their use of appeasement and avoidance behaviors and SMUAC and to decrease their preference for public recognition. Again, these relationships are expected to be moderated by STTUC. Outperformers who perceive their environments as more competitive should be more likely to engage in the study's outcomes, which represent actions to reduce others' potentially threatening reactions (e.g., retaliation) to being outperformed in a competitive environment, if they recognize the potential for their achievements to invoke competition-induced threatening responses from others. If outperformers in more competitive psychological climates are not experiencing STTUC, then they have not recognized that their achievements may potentially invoke competition-induced threatening responses from others and, therefore, have no impetus for choosing threat-reducing actions.

Hypothesis 15: STTUC will moderate the relationships between competitive psychological climate and (a) appeasement, (b) avoidance, (c) SMUAC, and (d) recognition preference, such that the relationships will be stronger for outperformers who are experiencing more STTUC.

### Outperformers' STTUC and Actual Threat Experienced by Coworkers

As stated in Hypothesis 12 of the initial conceptual scheme, actual threat experienced by coworkers was expected to increase outperformers' use of appeasement and avoidance behaviors and SMUAC and to decrease their preference for public recognition. These relationships are expected to be moderated by STTUC, as STTUC represents the recognition of and concern for such threat. Outperformers not experiencing STTUC either have not recognized the threat

experienced by the outperformed, or they are unconcerned. They would thus have no reason to respond with threat-reducing actions.

Hypothesis 16: STTUC will moderate the relationships between actual threat experienced by coworkers and (a) appeasement, (b) avoidance, (c) SMUAC, and (d) recognition preference, such that the relationships will be stronger for outperformers who are experiencing more STTUC.

### **Analyses and Results of Respecification**

Moderated multiple regression was used to test the post-hoc Hypotheses 13 through 16. The control variables gender, tenure, and social desirability were again entered in the analyses at Step 1 and were subsequently removed due to absence of effects, with the exception of analyses predicting avoidance, in which case tenure had a significant effect. Results of these regression analyses are given in Tables 13 through 17. The nature and direction of all significant interactions were examined graphically, and regression lines were plotted based on a mean  $\pm$  1 *SD* split for STTUC to represent outperformers experiencing high and low STTUC.

Hypothesis 13 predicted that when interpersonal sensitivity is high, outperformers experiencing high levels of STTUC would be more likely to use appeasement and avoidance behaviors and be socially motivated to underachieve and would be less likely to prefer more public forms of recognition than would those who are experiencing low levels of STTUC. An effect was found for the interaction of interpersonal sensitivity and STTUC in predicting the modest self-presentation component of appeasement ( $\beta = 2.34, p < .01$ ), the sympathy component of appeasement ( $\beta = 1.18, p = .10$ ), and avoidance ( $\beta = 2.45, p < .01$ ), thus supporting STTUC as a moderator of the effects of interpersonal sensitivity on the use of appeasement and avoidance behaviors and lending support to Hypotheses 13(a) and 13(b). These

**Table 13: Results of Hierarchical Regression Analyses for Modest Self-Presentation**

Variables	$\beta$	$p$	$R^2$	$\Delta R^2$
Step 1: Interpersonal Sensitivity	-.13	.18	.08	.08 <sup>†</sup>
Empathic Concern	-.09	.35		
Competitiveness	.11	.27		
Internal Threat	.08	.44		
External Threat	.16 <sup>†</sup>	.10		
Step 2: Interpersonal Sensitivity	-.13	.18	.08	.00
Empathic Concern	-.10	.32		
Competitiveness	.10	.33		
Internal Threat	.08	.44		
External Threat	.16	.13		
STTUC	.04	.68		
Step 3: Interpersonal Sensitivity	-.98**	.00	.29	.21**
Empathic Concern	.75**	.00		
Competitiveness	-.21	.40		
Internal Threat	-.69*	.01		
External Threat	-.71*	.02		
STTUC	-1.40	.23		
IS X STTUC	2.34**	.00		
EC X STTUC	-4.25**	.00		
Comp. X STTUC	.21	.67		
IT X STTUC	1.75**	.00		
ET X STTUC	2.09**	.00		

<sup>†</sup>  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ .

**Table 14: Results of Hierarchical Regression Analyses for Sympathy**

Variables	$\beta$	$p$	$R^2$	$\Delta R^2$
Step 1: Interpersonal Sensitivity	-.04	.71	.06	.06
Empathic Concern	-.17 <sup>†</sup>	.10		
Competitiveness	.17 <sup>†</sup>	.09		
Internal Threat	.02	.87		
External Threat	.01	.96		
Step 2: Interpersonal Sensitivity	-.04	.71	.06	.00
Empathic Concern	-.17	.11		
Competitiveness	.17 <sup>†</sup>	.10		
Internal Threat	.02	.87		
External Threat	.01	.96		
STTUC	.00	.97		
Step 3: Interpersonal Sensitivity	-.46 <sup>†</sup>	.10	.12	.06
Empathic Concern	.43	.14		
Competitiveness	.01	.98		
Internal Threat	-.22	.46		
External Threat	-.57 <sup>†</sup>	.09		
STTUC	.22	.87		
IS X STTUC	1.18 <sup>†</sup>	.10		
EC X STTUC	-3.09*	.03		
Comp. X STTUC	.09	.87		
IT X STTUC	.57	.35		
ET X STTUC	1.35 <sup>†</sup>	.06		

<sup>†</sup>  $p < .10$ ; \*  $p < .05$ .

**Table 15: Results of Hierarchical Regression Analyses for Avoidance**

Variables	$\beta$	$p$	$R^2$	$\Delta R^2$
Step 1: Tenure	.19*	.05	.04	.04
Step 2: Tenure	.18 <sup>†</sup>	.06	.10	.07
Interpersonal Sensitivity	-.08	.38		
Empathic Concern	.08	.57		
Competitiveness	.12	.20		
Internal Threat	.19 <sup>†</sup>	.10		
External Threat	-.12	.15		
Step 3: Tenure	.18 <sup>†</sup>	.06	.11	.00
Interpersonal Sensitivity	-.08	.39		
Empathic Concern	.07	.49		
Competitiveness	.14	.16		
Internal Threat	.17	.11		
External Threat	-.13	.20		
STTUC	-.07	.51		
Step 4: Tenure	.26**	.00	.38	.28**
Interpersonal Sensitivity	-1.00**	.00		
Empathic Concern	.67**	.01		
Competitiveness	-.23	.33		
Internal Threat	-.96**	.00		
External Threat	-.82**	.01		
STTUC	-3.48**	.00		
IS X STTUC	2.48**	.00		
EC X STTUC	-2.74*	.03		
Comp. X STTUC	.38	.42		
IT X STTUC	2.51**	.00		
ET X STTUC	1.67**	.01		

<sup>†</sup>  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ .

**Table 16: Results of Hierarchical Regression Analyses for SMUAC**

Variables	$\beta$	$p$	$R^2$	$\Delta R^2$
Step 1: Interpersonal Sensitivity	-.07	.46	.02	.02
Empathic Concern	-.01	.96		
Competitiveness	.00	.98		
Internal Threat	.13	.21		
External Threat	-.02	.85		
Step 2: Interpersonal Sensitivity	-.08	.45	.03	.01
Empathic Concern	-.03	.77		
Competitiveness	-.03	.80		
Internal Threat	.14	.19		
External Threat	-.04	.70		
STTUC	.12	.25		
Step 3: Interpersonal Sensitivity	-.35	.21	.10	.07
Empathic Concern	-.18	.54		
Competitiveness	.05	.85		
Internal Threat	-.19	.54		
External Threat	.63 <sup>†</sup>	.06		
STTUC	-.67	.61		
IS X STTUC	.71	.32		
EC X STTUC	.97	.51		
Comp. X STTUC	-.08	.88		
IT X STTUC	.67	.28		
ET X STTUC	-1.50*	.04		

<sup>†</sup>  $p < .10$ ; \*  $p < .05$ .

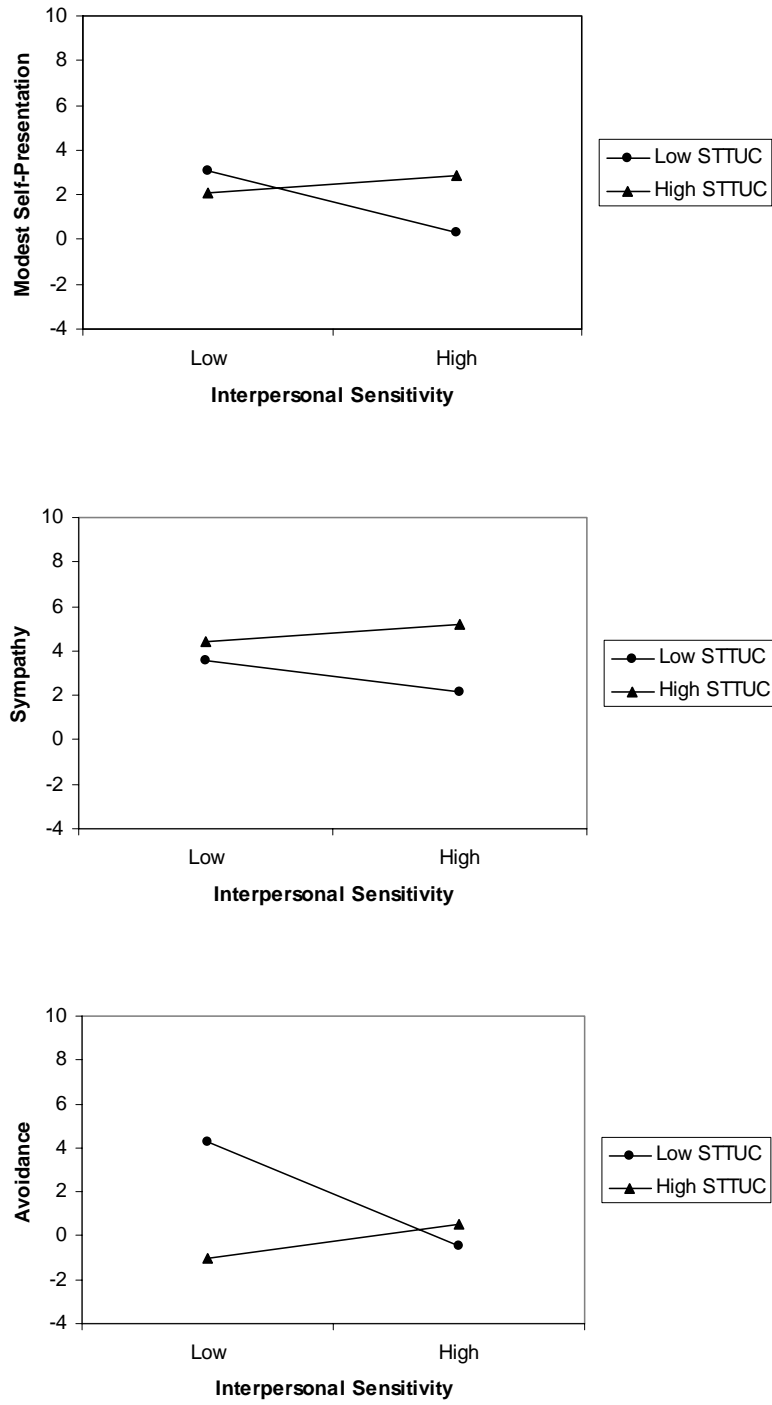
**Table 17: Results of Hierarchical Regression Analyses for Recognition Preference**

Variables	$\beta$	$p$	$R^2$	$\Delta R^2$
Step 1: Interpersonal Sensitivity	.08	.40	.07	.07
Empathic Concern	-.20 <sup>†</sup>	.06		
Competitiveness	-.17 <sup>†</sup>	.09		
Internal Threat	-.04	.73		
External Threat	-.08	.45		
Step 2: Interpersonal Sensitivity	.08	.40	.07	.00
Empathic Concern	-.20 <sup>†</sup>	.06		
Competitiveness	-.17 <sup>†</sup>	.09		
Internal Threat	-.03	.74		
External Threat	-.08	.43		
STTUC	.02	.82		
Step 3: Interpersonal Sensitivity	-.27	.34	.12	.05
Empathic Concern	.37	.20		
Competitiveness	-.22	.42		
Internal Threat	-.23	.44		
External Threat	-.45	.18		
STTUC	.99	.46		
IS X STTUC	.99	.17		
EC X STTUC	-3.05*	.04		
Comp. X STTUC	-.09	.87		
IT X STTUC	.47	.45		
ET X STTUC	.87	.24		

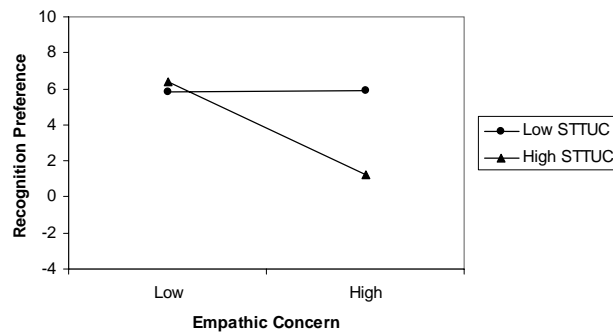
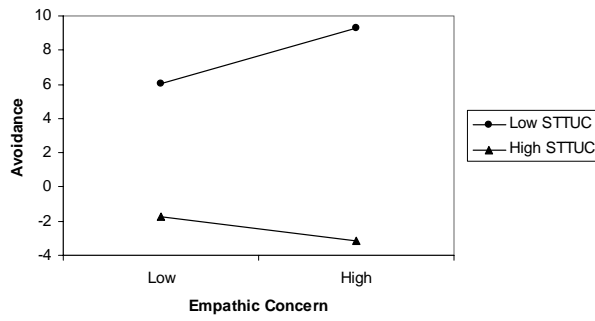
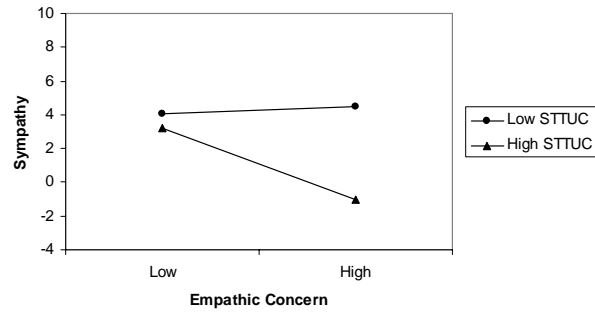
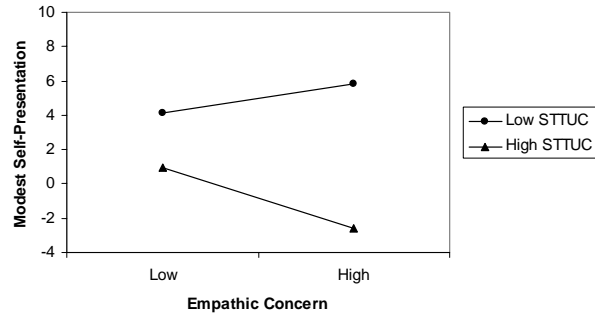
<sup>†</sup>  $p < .10$ ; \*  $p < .05$ .

interactions were plotted (Figure 5), showing a negative sloped regression line for low STTUC and a positive sloped line for high STTUC. In other words, as interpersonal sensitivity increases, the use of appeasement and avoidance behaviors increases for those experiencing high levels of STTUC, but does not for those experiencing low levels. Hypotheses 13(c) and 13(d) were not supported.

Hypothesis 14 predicted that when empathic concern is high, outperformers experiencing high levels of STTUC would be more likely to use appeasement and avoidance behaviors and be socially motivated to underachieve and would be less likely to prefer more public forms of recognition than would those who are experiencing low levels of STTUC. An effect was found for the interaction of empathic concern and STTUC in predicting the modest self-presentation component of appeasement ( $\beta = -4.25, p < .01$ ), the sympathy component of appeasement ( $\beta = -3.09, p < .05$ ), avoidance ( $\beta = -2.66, p < .05$ ), and recognition preference ( $\beta = -3.05, p < .05$ ), thus supporting STTUC as a moderator of the effects of interpersonal sensitivity on the use of appeasement and avoidance behaviors and preference for public recognition and lending preliminary support to Hypotheses 14(a), 14(b), and 14(d). These interactions were plotted (Figure 6), showing a negative-sloped regression line for outperformers experiencing high STTUC and a positive-sloped line for low STTUC. These plots show strong support for Hypothesis 14(d), with a slope close to zero for outperformers experiencing low STTUC, but a very steep downward slope for high STTUC. In other words, as outperformers' empathic concern increases, they will prefer significantly less public forms of recognition if they are experiencing high levels of STTUC. At low levels of STTUC, their preferences for public recognition remain high regardless of their empathic concern. These plots, however, show relationships in the opposite direction as predicted in Hypotheses 14(a) and 14(b), suggesting



**Figure 5: Plots of the Interaction between Interpersonal Sensitivity and STTUC**



**Figure 6: Plots of the Interaction between Empathic Concern and STTUC**

that as outperformers' empathic concern increases, their use of appeasement and avoidance behaviors curiously decreases.

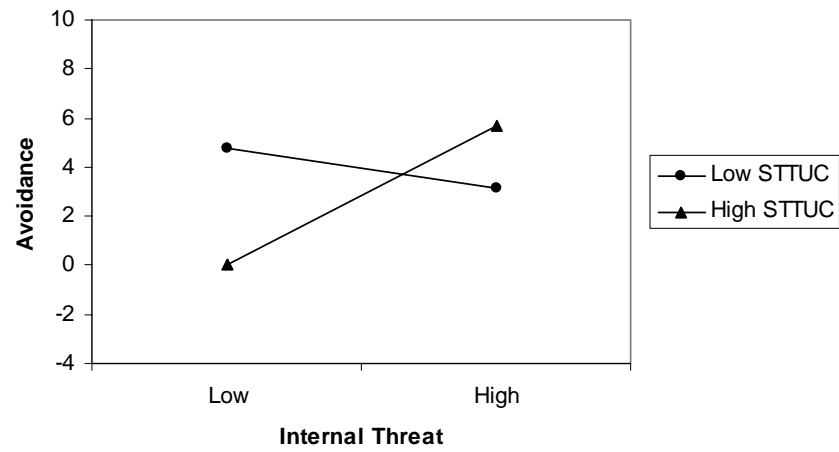
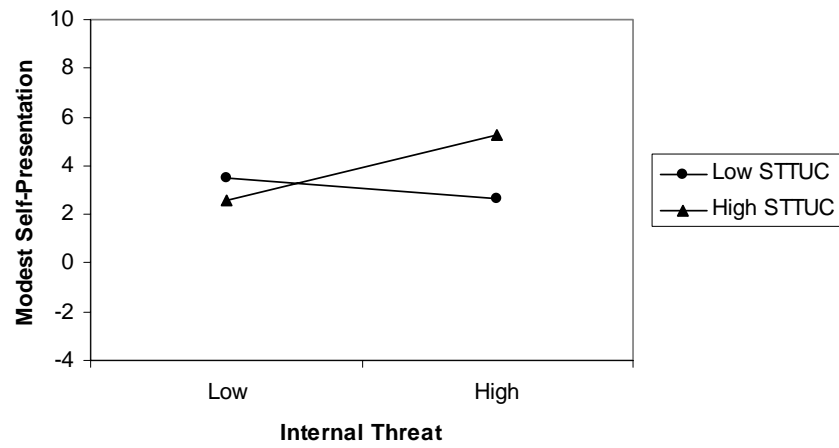
Hypothesis 15 predicted that when the organizational environment is perceived as highly competitive, outperformers experiencing high levels of STTUC would be more likely to use appeasement and avoidance behaviors and be socially motivated to underachieve and would be less likely to prefer more public forms of recognition than would those who are experiencing low levels of STTUC. No effects were found for the interaction of competitive psychological climate and STTUC, indicating STTUC is not a moderator of the relationships between this independent variable and the outcome variables and lending no support to Hypothesis 15. This lack of significant findings suggests that the effects of competitiveness on the outcome variables are not contingent upon the degree to which outperformers experience STTUC.

Hypothesis 16 predicted that when actual threat experienced by coworkers is high, outperformers experiencing high levels of STTUC would be more likely to use appeasement and avoidance behaviors and be socially motivated to underachieve and would be less likely to prefer more public forms of recognition than would those who are experiencing low levels of STTUC. Effects were found for the interaction of internal threat and STTUC in predicting the modest self-presentation component of appeasement ( $\beta = 1.75, p < .01$ ) and avoidance ( $\beta = 2.42, p < .01$ ). Effects were found for the interaction of external threat and STTUC in predicting the modest self-presentation component of appeasement ( $\beta = 2.09, p < .01$ ), the sympathy component of appeasement ( $\beta = 1.35, p = .06$ ), avoidance ( $\beta = 2.42, p < .01$ ), and socially motivated underachievement ( $\beta = -1.50, p < .05$ ). These results support STTUC as a moderator of the effects of actual threat experienced by coworkers on outperformers' use of appeasement

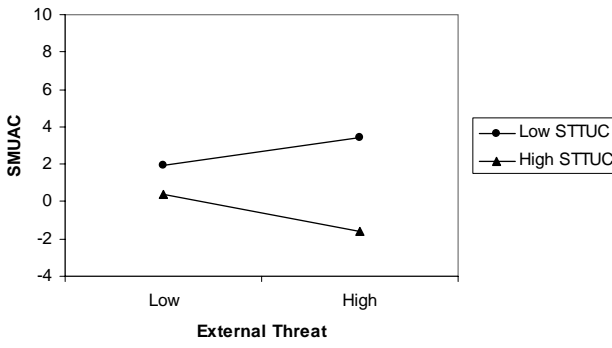
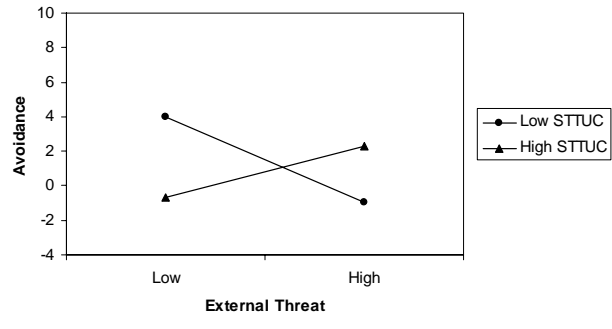
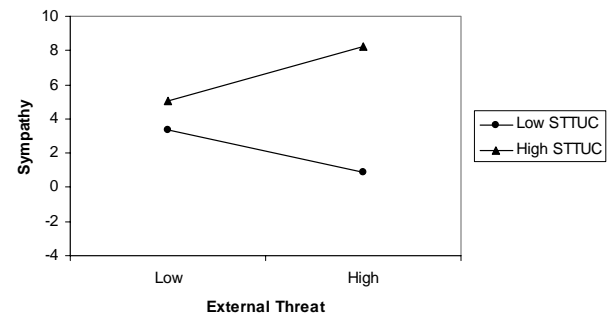
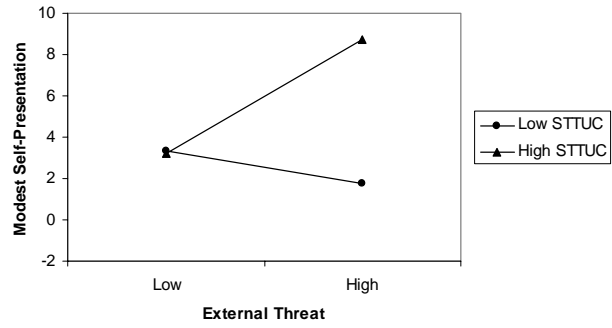
and avoidance behaviors and socially motivated underachievement and lend preliminary support to Hypotheses 16(a), 16(b) and 16(c).

These interactions were plotted (Figures 7 and 8). Effects of these interactions are as expected in predicting the appeasement and avoidance behaviors, with positive-sloped regression lines for high levels of STTUC and negative-sloped regression lines for low levels of STTUC. These results indicate when coworkers are actually threatened by upward comparisons, outperformers experiencing high levels of STTUC will utilize appeasement and avoidance behaviors more so than will those experiencing low levels of STTUC. For the effect of the interaction of external threat and STTUC on SMUAC, there is a negative sloped regression line for high STTUC, and the regression line for low STTUC actually has a positive slope. These plots are in the opposite direction as expected. This indicates higher levels of coworkers' external threat lead to less propensity for socially motivated underachievement in outperformers experiencing high levels of STTUC than for those experiencing low levels of STTUC.

The conceptual respecification in Figure 8 predicted that STTUC would interact with the predictor variables interpersonal sensitivity, empathic concern, competitiveness, and actual threat experienced by coworkers to predict the outcome variables appeasement, avoidance, SMUAC, and recognition preference. Several of the interactive relationships depicted in Figure 8 were corroborated by the subsequent data analyses, providing partial support for Hypotheses 13, 14, and 16. The results presented here suggest that the extent to which outperformers experience STTUC plays an important role in determining their reactions to their own high achievements.



**Figure 7: Plots of the Interaction between Internal Threat and STTUC**



**Figure 8: Plots of the Interaction between External Threat and STTUC**

## CHAPTER SEVEN: DISCUSSION AND CONCLUSIONS

### Discussion

The purpose of this dissertation was to present and test a conceptual scheme (Figure 1) that furthers understanding of the possible reactions of award-recipients who perceive themselves as targets of social-comparison processes. Four relevant dispositional, perceptual, and situational factors were hypothesized to be antecedents of STTUC, or emotional discomfort associated with being the target of upward comparisons that are threatening to others or oneself, and four behavioral and affective responses were hypothesized as its consequences. Exline and Lobel's (1999) theory of STTUC served as the theoretical underpinnings for the underlying conceptual scheme.

Results (presented in Table 18) provided intriguing foundations for future research endeavors. As this investigation was the first to examine STTUC in a workplace setting, it is interesting to note that STTUC was indeed experienced by identified award-recipients (average scores ranged from 1 to 5;  $M = 1.87$ ,  $SD = .80$ ) and that actual threat was also experienced by the real-estate agents as a whole ( $M = 2.11$ ,  $SD = .55$ ;  $M = 1.33$ ,  $SD = .30$  for internally- and externally-based threat, respectively). Evidence of threat was also found in open-ended comments provided by the agents on their surveys, for example, "I feel too much emphasis is placed on the rewards ceremony, etc. It creates 'stars' in an industry – numbers of agents go through the training program but are not given the follow up attention needed to succeed. Greater attention through the year for achievements is needed – not just end of the year. Greater input [is] needed from all agents, not just top of the ladder group, to determine an awards system."

**Table 18: Summary of Findings**

<b>Hypothesis</b>	<b>Findings</b>
<b>1</b> Interpersonal sensitivity pos. rel. to STTUC	Not supported.
<b>2</b> Empathic concern pos. rel. to STTUC	Supported by bivariate correlations, multiple regression analyses, and path analysis.
<b>3</b> Competitiveness pos. rel. to STTUC	Supported by bivariate correlations, multiple regression analyses, and path analysis.
<b>4</b> Threat pos. rel. to STTUC	Supported by path analysis for external threat only at the $p < .10$ level. A negative relationship was found for internal threat ( $p < .05$ ).
<b>5</b> STTUC pos. rel. to Appeasement	Not supported.
<b>6</b> STTUC pos. rel. to Avoidance	Not supported.
<b>7</b> STTUC pos. rel. to SMUAC	Not supported.
<b>8</b> STTUC neg. rel. to Recognition preference	Not supported.
<b>9</b> Interpersonal sensitivity rel. to Outcomes	Not supported.
<b>10</b> Empathic concern rel. to Outcomes	Supported by bivariate correlations and path analysis for recognition preference and in the opposite direction as predicted for sympathy (both at the $p < .10$ level).
<b>11</b> Competitiveness rel. to Outcomes	Supported by path analysis for recognition preference. Supported by bivariate correlations for sympathy & recognition preference at the $p < .10$ level. Supported by path analysis for sympathy and avoidance at the $p < .10$ level.
<b>12</b> Threat rel. to Outcomes	Supported by bivariate correlations, regression analyses, and path analysis for modesty. Supported by path analysis for avoidance, modesty, & sympathy. Supported by bivariate correlations for avoidance at the $p < .10$ level.
<b>13</b> STTUC moderates Interpersonal sensitivity & outcomes	Supported for modesty, sympathy, and avoidance.
<b>14</b> STTUC moderates Empathic concern & outcomes	Supported for recognition preference. In opposite direction as expected for modesty, sympathy, and avoidance.
<b>15</b> STTUC moderates Competitiveness & outcomes	Not supported.
<b>16</b> STTUC moderates Threat & outcomes	Supported for modesty, sympathy, and avoidance. In opposite direction as expected for SMUAC.

## STTUC Antecedents

The first four hypotheses predicted positive relationships between the four antecedents and STTUC. Hypothesis 1 predicted a relationship between interpersonal sensitivity and STTUC, but was not supported. Empathic concern and competitive psychological climate were significantly correlated with STTUC across all analyses, thus lending strong support to Hypotheses 2 and 3. Hypothesis 4, which predicted a relationship between actual threat experienced by the outperformed and outperformers' STTUC, had inconclusive results. This relationship approached significance for external threat only. Further, internal threat was negatively related to STTUC, which was in the opposite direction hypothesized. Together, these results suggest that award-recipients who have more empathic concern, who perceive their work environments as more competitive, and whose coworkers are actually experiencing more externally focused threat as a result of engaging in upward comparisons are more likely to experience STTUC, but they are less likely to experience STTUC when the outperformed are experiencing internal threat.

There are several explanations for the unexpected negative relationship between internal threat and STTUC. Actual threat experienced was collected from and averaged across ratings provided by award-recipients' coworkers. The average threat experienced by the few coworkers responding to the survey may not be as relevant to an award-recipient's STTUC as threat experienced by one particular coworker or by someone who failed to complete the study survey. Further, if this is the case, averaging the threats, by nature, underestimates the degree of threat present in an environment. In addition, award-recipients may simply have difficulty recognizing threat is present, especially internally-based threat (i.e., embarrassment, disappointment). In fact, award-recipients would need some degree of empathy and, more precisely, accurate empathy

(Davis, 1994), to be able to recognize feelings of threat in others. A much more extensive network-based analysis of this phenomenon is needed before conclusions can be made about actual threat's effect on STTUC. An important implication of these findings is that the threat existed and varied across employees and offices and that the type of threat experienced by coworkers can potentially have differential effects on award-recipients' STTUC.

### STTUC Consequences

Hypotheses 5 through 8 were not directly supported, as STTUC was not significantly related to any of the dependent variables. Because coworkers rated award-recipients' use of appeasement and avoidance behaviors, it is possible that rater bias attenuated results for these consequences through intentional and unintentional distortions, differing interpretations of rating scales, or competing goals (Kozlowski, Chao, & Morrison, 1998). In fact, some respondents indicated their bias or inexperience with statements such as, "I did not answer these questions, because we just don't talk about awards," and "I find you asking me personal questions about my co-workers intrusive." Another explanation is that award-recipients experiencing STTUC chose not to engage in appeasement and avoidance behaviors so as not to make their fear of retaliation or sabotage obvious to their coworkers (i.e., to maintain a semblance of normalcy in the workplace). Until further examination, these results should be interpreted with caution. The lack of results for these hypotheses also suggests the possibility of interaction effects, which were later examined, and the results are discussed below.

### Direct Paths from Antecedents to Consequences

STTUC did not serve as a mediator between the study variables, but direct relationships between the antecedents and consequences were expected and were found. Hypothesis 9 was not supported, as interpersonal sensitivity had no significant relationships with any of the study

variables. Again, this was likely due to low internal reliability for the measure used to tap this construct, and future examination of this measure is warranted.

Hypothesis 10 received tentative support (approaching significance) for its predicted negative relationship between empathic concern and recognition preference. Empathic concern was negatively correlated (at the  $p < .10$  level) with sympathy, which was in the opposite direction as hypothesized. These results lend tentative support to the idea that outperformers with more empathic concern will be less inclined to prefer public forms of recognition and to make sympathetic attempts with the outperformed. Improved measurement of appeasement and avoidance behaviors and of empathic concern (see discussion below) could return stronger results supporting empathic concern's relationships with the study's consequences.

Partial support for Hypothesis 11 was found with a significant, direct, negative relationship between competitive psychological climate and recognition preference. Further, evidence was found to tentatively support relationships with sympathy, a component of appeasement behaviors, and avoidance behaviors. These results suggest that outperformers who perceive their environments as more competitive prefer less public forms of recognition and are more likely to engage in sympathetic attempts and avoidance behaviors in the presence of the outperformed.

Direct relationships between actual threat experienced by the outperformed and outperformers' use of appeasement and avoidance behaviors were found in all analyses, thus lending strong, partial support to Hypothesis 12. More specifically, internal threat was correlated with modest self-presentation, sympathy, and avoidance, and external threat was correlated with sympathy and avoidance. These results suggest that when the outperformed are feeling

threatened as a result of engaging in upward comparisons, outperformers may respond by using appeasement and avoidance behaviors.

#### STTTUC as a Moderator

The results of analysis of the respecified model showed that rather than working as a mediator between the antecedents and consequences, STTUC actually interacted with the antecedents to explain the consequences. In others words, the relationships between the antecedents and consequences were contingent upon whether outperformers' experienced STTUC. Significant interaction effects were found in predicting all consequences (modest self-presentation, sympathy, avoidance, SMUAC, and recognition preference) in the respecified model, thus lending partial support to Hypotheses 13 through 16. Specifically, results indicated that when outperformers' STTUC is high, interpersonal sensitivity and external threat have stronger relationships with the use of all appeasement and avoidance behaviors, and internal threat has stronger relationships with modest self-presentation and avoidance. However, when STTUC is high, high levels of empathic concern result in *decreased* use of appeasement and avoidance behaviors. These results are in the opposite direction as hypothesized.

High STTUC strengthens the relationship between outperformers' empathic concern and their preference for less public forms of recognition. Finally, in predicting outperformers' propensity for socially motivated underachievement, a consequence with no explained variance in all previous analyses, STTUC interacted with the antecedent external threat such that when STTUC is high, external threat has a stronger, negative relationship with SMUAC. This last result was in the opposite direction as hypothesized, but further suggests that outperformers will react differentially to internal and external threat experienced by the outperformed.

## Summary

Taken together, these results indicate outperformers with more interpersonal sensitivity will be more likely to use appeasement and avoidance behaviors when they are experiencing high STTUC than when they are experiencing low STTUC. Additionally, outperformers with more empathic concern and who perceive their environments as more competitive may be less likely to prefer public recognition of their awards, and this relationship is stronger when STTUC is high than when it is low. Outperformers who perceive their environments as more competitive are also more likely to utilize sympathy as a form of appeasement behavior towards coworkers who did not receive awards and to engage in avoidance behaviors. These results make sense and comply with the theoretical reasoning presented in Chapter Two. Those who receive awards and recognition in an environment they perceive is competitive understand the importance of those awards to all participants. In other words, they are aware that their gain is another's loss. Sympathetic displays would be a natural response for someone in such a position.

When their coworkers are actually experiencing threat as a result of engaging in upward comparisons, outperformers are more likely to utilize appeasement and avoidance behaviors. These relationships are also stronger when STTUC is high than when it is low. Inasmuch as outperformers are capable of recognizing the responses of others, modest downplaying of achievements when others experience threat as a result of public recognition of such achievements is an expected response for minimizing conflict (Santor & Zuroff, 1997). This should hold more so when a threat is externally-based, or specifically aimed at award-recipients (e.g., feeling intimidated, hostile, vengeful).

Some unexpected findings were those related to the antecedent empathic concern, which, again, could be attributed to measurement error (as discussed below). A possible negative

relationship between empathic concern and sympathy was opposite of that hypothesized, though it was marginally significant. However, further negative relationships were found in the respecification analyses, which suggested that when STTUC is high, outperformers with more empathic concern will actually engage in fewer appeasement and avoidance behaviors. These relationships suggest that outperformers who are experiencing high STTUC and who are better able to empathize may find the usefulness of appeasement and avoidance behaviors in eliminating others' distress to be suspect.

Another unexpected finding was the negative interaction effect of STTUC and external threat in predicting SMUAC. Outperformers experiencing high STTUC are uncomfortable or “sensitive” to the effects their achievements have on others. High STTUC means they are aware others are feeling threatened, and when that threat is externally-based (e.g., the outperformer is the object of anger or retaliation from the outperformed), outperformers may choose differential responses to it than they would with internally-based (e.g., the outperformed is disappointed in his or her own efforts) threat. Because the results here actually show SMUAC *decreases* when external threat is present, outperformers are opting *not* to alter their levels of achievement for the sake of alleviating others' external threat. This suggests a possible alternative proposition that outperformers are not concerned about others' retaliatory feelings of anger, resentment, or hostility to the extent that they will sacrifice their own future potential in order to eliminate such feelings. It is possible that outperformers actually experience resentment or anger themselves at the recognition that others are responding in such a way to being outperformed.

### **Theoretical Implications**

The most prominent theoretical implication of this dissertation is that STTUC, although heretofore only explored in controlled experiments, can and should be applied and examined in

the realm of organizational studies. Since the introduction of the concept in 1999, STTUC had thus far not been considered in the management literature. This dissertation is a first step in implementing STTUC assessments, including its three related components, among a sample of employed adults. Studying STTUC in organizational settings is much more complex than in laboratory settings, as the comparisons being made in organizations are related to peoples' life work, careers, and livelihoods, as opposed to educational grades, which were the basis of past studies. In addition, events that trigger STTUC may not be as accessible to researchers in all types of organizations. The real-estate sample studied in this dissertation was chosen for the prominence of its recognition processes (i.e., annual, public, award ceremonies), but recognition may not be as public or as cyclical in other forms of organizations.

Because STTUC did not mediate the relationships between the antecedents and consequences in this study as predicted, future research must further examine the dynamics of this model. The moderated regression analyses conducted in the model respecification examined the potential interaction effects of STTUC on these relationships and showed that rather than being the conduit through which such variables as a competitive environment and empathic concern are related to behavioral responses and recognition preferences in award-recipients, it interacted with the antecedents in such a way that relationships with the consequences were stronger when STTUC was present. The strength and validity of the STTUC measure developed here and in studies conducted by Exline and her colleagues (Exline & Lobel, 2001; Exline et al., 2004; Geyer & Exline, 2003) should be further examined.

Results related to the use of Davis's (1994) much utilized empathic concern measure warrant some level of skepticism for future research involving this construct. Differences between the pretest, in which a student sample and qualifiers were used, and the dissertation field

study, in which an employee sample was used and qualifiers were removed, raise questions for future research. Were the differences in results attributable to the type of sample or to the qualifiers? This question should be addressed in an extensive study of this measure utilizing different samples and question wording. Empathic concern was the only measure that was significantly correlated with socially desirable responding and, in addition, it had a low estimated internal reliability ( $\alpha = .66$ ). Measures with low reliability are not dependable and have inflated standard errors of estimates (Cook & Campbell, 1979, p. 43). Interestingly, reliability was not an issue in pretesting with the student population ( $\alpha = .75$ ), when the original items with qualifiers were used. Qualifiers can contribute some degree of bias to items by influencing respondents' answers in one way or another and should only be used to intentionally restrict a question (such as by referencing a certain time period; Czaja & Blair, 1996). It is, therefore, suspected that the qualifiers had some effect on response patterns. For instance, Davis's (1994) original empathic concern measure included statements such as, "Sometimes I don't feel very sorry for other people when they are having problems," and "When I see someone being treated unfairly, I sometimes don't feel very much pity for them." Respondents were then asked to rate these statements with the words "sometimes" and "very" in them on a response continuum ranging from "strongly agree" to "strongly disagree." Some respondents even indicated on their surveys that they were confused by this wording. An example of such confusion as stated by a respondent was, "Never and sometimes always leaves room for anyone to have felt once but not indicative of personality." When qualifiers were removed from the items, internal reliability decreased. Together with socially desirable responding, this problem suggests that resulting relationships should be interpreted with caution.

The current study failed to support a priori hypothesized relationships with socially motivated underachievement. Although further investigation in various organizational settings is needed before such results can be considered conclusive, a possible explanation for this lack of findings could be attributed to the expectation for reciprocation associated with altruism in business environments (Kanungo & Conger, 1993). Another explanation could be that outperformers perceive their costs in underachieving to outweigh any potential benefits to the outperformed, thus deterring thoughts of SMUAC.

### **Practical Implications**

The existence of STTUC for award-recipients and the existence of threat associated with making upward comparisons in those who are outperformed should be an eye-opener for managers who are publicly acknowledging employee achievements. Of the real estate award-recipients surveyed in this dissertation, 17.7% indicated the public awards ceremony that is common among real-estate firms was their least preferred method of being recognized. Because results indicate employees who perceive their achievements are threatening to others are more likely to utilize appeasement and avoidance behaviors, the implementation of public-recognition procedures should be considered in light of employee preferences if managers wish to receive maximum benefits from such procedures (i.e., continued achievement). Reactions to recognition could vary across individuals depending on personal characteristics such as empathic concern, individual perceptions of the work environment, and individual perceptions of the effects achievements will have on coworkers.

The degree of workplace competitiveness perceived by employees should be considered by practitioners an important factor in determining reactions to reward systems. As demonstrated in this dissertation, perceived competitiveness increases award-recipients' STTUC and use of

avoidance and sympathy behaviors. Because competition is inherently comparative (Tesser, 1988), it gives rise to strong needs for social-comparison information (Gibbons & Buunk, 1999). Further, competitive climates stimulate a differentiation mindset rather than assimilation, leading employees engaging in social comparison to search for differences rather than similarities (Stapel & Koomen, 2005). The emotional discomfort associated with STTUC, a climate of differentiation, and the use of avoidance techniques are all potential concerns for any manager wishing to promote a climate of cooperation and teamwork. Results presented in this dissertation suggest that attempts to manipulate employees' perceptions of the competitiveness of the work environment could mitigate such concerns.

### **Limitations and Future Research**

The contributions of this dissertation must be considered in light of its limitations, and its limitations should be viewed as opportunities for future research to strengthen our understanding of STTUC and its impact on outperformers in the workplace. Obvious avenues for future research endeavors are to increase sample size and to continue to improve upon survey measures to allow stronger and, perhaps, additional relationships to emerge. Despite numerous attempts to increase sample size, STTUC is simply a low base-rate phenomenon, as it can only be experienced by those who believe they are targets of upward comparisons. Whereas the educational and familial contexts in which previous STTUC research (e.g., Exline & Lobel, 1999; Geyer & Exline, 2004) has been conducted may provide more extensive populations, appropriately identifying outperformers in the workplace is somewhat more restricted. Empirical tests were, thus, limited by small sample and effect sizes. An increased sample size would allow for estimation of complete models while accounting for measurement error via structural equation modeling techniques.

Some findings in this study that were significant were associated with small effect sizes. STTUC, appeasement, avoidance, socially motivated underachievement, and preference for less public forms of recognition were prevalent in the sample, but the variance in these variables was largely unexplained. This fact lends itself to further research to uncover those elements of employees and their environments that may additionally explain these workplace phenomena. Questions remain as to who experiences STTUC and in what situations does it increase, as well as to what responses are likely triggered by its experience. Future studies should also explore alternative methods of assessing outcomes, such as appeasement and avoidance behaviors, as coworkers in this study may not have been accurate raters of these behaviors in others. The advantage of laboratory studies in this area was that appeasement and avoidance behaviors could be directly observed by researchers, but in organizational settings, this option is unavailable. Self- or supervisor-assessments of these behaviors could be utilized, although increased potential for common-method bias exists if self-assessments are chosen.

The cross-sectional nature of this study is a limitation as it does not allow for the test of causality. Future research could benefit from longitudinal examinations of STTUC throughout realtors' careers and could answer the question of whether STTUC is more prevalent for newly hired employees than for veterans in a particular system of recognition and awards. STTUC could also be assessed both before and after a particular public recognition takes place. This type of study would require a very extensive commitment if an appropriate sample size is to be obtained. Whereas some of the present study variables were assessed by coworkers, a large portion was self-reported and, thus, was susceptible to common- method bias. Evidence that this was not a problem in the current study was given by insignificant correlations among the study variables, with the exception of empathic concern, and social desirability.

The real-estate sample used is a potential limitation for generalizing the results found (or not found), although multiple organizations were incorporated in the sample and were largely found to be similar on the study variables. Replications with other samples would help to verify generalizability. There could be nuances associated with real-estate work (i.e., sales, independence) that would cause real-estate agents to have differential experiences and responses to social comparisons and STTUC.

One set of unusual results of the respecification analyses were those associated with the outcome avoidance. The graphical analysis of the interaction effects related to this variable display the expected positive-sloped regression line for high STTUC outperformers and a negative-sloped line for low STTUC. However, these lines intersect in such a way that it appears low STTUC outperformers are much more likely to utilize avoidance behaviors than are those experiencing high STTUC when interpersonal sensitivity is low and when coworkers are experiencing low threat. Outperformers with low interpersonal sensitivity place less emphasis on the importance of maintaining relationships, so they may be less likely to interact with coworkers in general. Further, those outperformers who do have less interaction with coworkers for this or other reasons (i.e., working from home) may be less inclined to experience STTUC because they have less opportunity to recognize coworker responses to being outperformed. Additionally, those who are shy or introverted may be less inclined to discuss their performance with others. Together with low threat experienced by the outperformed, this could result in outperformers experiencing low STTUC and coworkers' perceptions that outperformers are displaying avoidance behaviors. These results suggest outperformers' use of avoidance behaviors is differentially influenced from the other outcomes in the study and that further examination of this and other potential influencing factors is warranted.

## **Conclusions**

This dissertation took a phenomenon that had been identified and studied in laboratory settings using students' grades and spousal achievements and examined it in a realistic, employment setting. Its purpose was not only to apply theories of social comparison and STTUC to the field of management, but also to further examine the calculus that brings about such emotional discomfort in a seemingly positive situation (i.e., receiving awards) and to identify potential responses to this discomfort. Such variables as empathic concern, perceived competitiveness of the environment, and actual threat experienced by coworkers were found to increase award-recipients' experiences of STTUC, preferences for less public forms of recognition, and utilization of avoidance and appeasement behaviors. Whereas some of the findings presented here are inconclusive, this dissertation nonetheless is a first step in examining STTUC and its consequences in the workplace. As noted by Greenwald (1975), published studies as a whole tend to have a general bias toward significant effects, and dissertations are a tool by which researchers can overcome this bias. Any inconclusive results found here could indicate the effects of STTUC are less prevalent in organizational rather than educational contexts.

## REFERENCES

- Ambrose, M. L., & Kulik, C. T. (1999). Old friends, new faces: Motivation research in the 1990s. *Journal of Management*, 25, 231-292.
- Apsler, R. (1975). Effects of embarrassment on behavior toward others. *Journal of Personality and Social Psychology*, 32, 145-153.
- Aspinwall, L. G., & Taylor, S. E. (1993) Effects of social comparison direction, threat, and self-esteem on affect, self-evaluation, and expected success. *Journal of Personality and Social Psychology*, 64, 708-722.
- Ballard, R. (1992). Short forms of the Marlowe-Crowne Social Desirability Scale. *Psychological Reports*, 71, 1155-1160.
- Batson, C. D., Klein, T. R., Highberger, L., & Shaw, L. L. (1995). Immorality from empathy-induced altruism: When compassion and justice conflict. *Journal of Personality and Social Psychology*, 68, 1042-1054.
- Batson, C. D., & Shaw, L. L. (1991). Encouraging words concerning the evidence for altruism. *Psychological Inquiry*, 2, 159-168.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, 8, 274-289.
- Bennett, M., & Dewberry, C. (1989). Embarrassment at others' failures: A test of the Semin and Manstead model. *Journal of Social Psychology*, 129, 557-559.
- Bentler, P. M. (2004). *EQS 6 structural equations program manual*. Encino, CA: Multivariate Software, Inc.
- Berg, J. H., Stephan, W. G., & Dodson, M. (1981). Attributional modesty in women. *Psychology of Women Quarterly*, 5, 711-727.
- Bollen, K. A. (1989). *Structural equations with latent variables*. NY: Wiley.
- Brown, S. P., Cron, W. L., & Slocum, J. W., Jr. (1998). Effects of trait competitiveness and perceived intraorganizational competition on salesperson goal setting and performance. *Journal of Marketing*, 62, 88-98.
- Brown, R. D., & Hauenstein, N. M. A. (2005). Interrater agreement reconsidered: An alternative to the  $r_{wg}$  indices. *Organizational Research Methods*, 8, 165-184.

- Buunk, B. P., Collins, R. L., Taylor, S. E., VanYperen, N. W., & Dakof, G. A. (1990). The affective consequences of social comparison: Either direction has its ups and downs. *Journal of Personality and Social Psychology, 59*, 1238-1249.
- Buunk, B. P., Ybema, J. F., & van der Zee, K. (2001). Affect generated by social comparisons among nurses high and low in burnout. *Journal of Applied Social Psychology, 31*, 1500-1520.
- Cialdini, R. B., & Richardson, K. D. (1980). Two indirect tactics of impression management: Basking and blasting. *Journal of Personality and Social Psychology, 39*, 406-415.
- Clark, D. A., Steer, R. A., Beck, A. T., & Ross, L. (1995). Psychometric characteristics of revised sociotropy and autonomy scales in college students. *Behaviour Research and Therapy, 33*, 325-334.
- Coffman, D. L., & MacCallum, R. C. (2005). Using parcels to convert path analysis models into latent variable models. *Multivariate Behavioral Research, 40*, 235-259.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design & analysis issues for field settings*. Boston: Houghton Mifflin.
- Cramer, D. (1993). Perceived and desired facilitativeness of one's closest friend, need for approval, and self-esteem. *British Journal of Medical Psychology, 66*, 97-104.
- Cramer, D. (2003). Facilitativeness, conflict, demand for approval, self-esteem, and satisfaction with romantic relationships. *Journal of Psychology, 137*, 85-98.
- Cross, T. L., Coleman, L. J., & Terhaar-Yonkers, M. (1991). The social cognition of gifted adolescents in schools: Managing the stigma of giftedness. *Journal for the Education of the Gifted, 15*, 44-55.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354.
- Czaja, R., & Blair, J. (1996). *Designing surveys*. Thousand Oaks, CA: Pine Forge Press.
- Daubman, K. A., Heatherington, L., & Ahn, A. (1992). Gender and the self-presentation of academic achievement. *Sex Roles, 27*, 187-204.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.
- Davis, M. H. (1994). *Empathy: A social psychological approach*. Dubuque, IA: Brown & Benchmark.

- Diener, E., & Fujita, F. (1997). Social comparisons and subjective well-being. In B. P. Buunk & F. X. Gibbons (Eds.), *Health, coping, and well-being: Perspectives from social comparison theory* (pp. 329-357). Mahway, NJ: Erlbaum.
- Exline, J. J., & Geyer, A. L. (2003). Who's afraid of being envied? Trait and demographic correlates of STTUC discomfort. *Poster presented at the annual meeting of the Society for Personality and Social Psychology, Los Angeles, CA.*
- Exline, J. J., & Lobel, M. (1997). Outperforming someone you know: Predictors of personal and relationship strain. *Poster presented at the annual meeting of the American Psychological Society, Washington, D.C.*
- Exline, J. J., & Lobel, M. (1999). The perils of outperformance: Sensitivity about being the target of a threatening upward comparison. *Psychological Bulletin, 125*, 307-337.
- Exline, J. J., & Lobel, M. (2001). Private gain, social strain: Do relationship factors shape responses to outperformance? *European Journal of Social Psychology, 31*, 593-607.
- Exline, J. J., & Lobel, M. (2004). Appeasement in competitive contexts: Effects of prize sharing and self-deprecation on outperformed persons. *Poster presented at the annual meeting of the Society for Personality and Social Psychology, Austin, TX.*
- Exline, J. J., Single, P. B., Lobel, M., & Geyer, A. L. (2004). Glowing praise and the envious gaze: Social dilemmas surrounding the public recognition of achievement. *Basic and Applied Social Psychology, 26*, 119-130.
- Festinger, L. A. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.
- Gardner, W. L., Gabriel, S., & Hochschild, L. (2002). When you and I are "we," you are not threatening: The role of self-expansion in social comparison. *Journal of Personality and Social Psychology, 82*, 239-251.
- Geyer, A. L., & Exline, J. J. (2003). Being a good winner: Appeasement, sociotropy, and discomfort about competitive success. *Poster presented at the annual meeting of the Society for Personality and Social Psychology, Los Angeles, CA.*
- Geyer, A. L., & Exline, J. J. (2004). Appeasement in competitive contexts: Effects of prize sharing and self-deprecation on outperformed persons. *Poster presented at the annual meeting of the Society for Personality and Social Psychology, Austin, TX.*
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: Development of a scale of social comparison orientation. *Journal of Personality and Social Psychology, 76*, 129-142.
- Greenwald, A. G. (1975). Consequences of prejudice against the null hypothesis. *Psychological Bulletin, 85*, 1-20.

- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis, 5<sup>th</sup> edition*. Upper Saddle River, NJ: Prentice Hall.
- Heatherington, L., Daubman, K. A., Bates, C., Ahn, A., Brown, H., & Preston, C. (1993). Two investigations of “female modesty” in achievement situations. *Sex Roles, 29*, 739-754.
- Ho, R., & Zemaitis, R. (1981). Concern over the negative consequences of success. *Australian Journal of Psychology, 33*, 19-28.
- Hong, S-M., & Caust, C. D. (1985). A factor analytic evaluation of the Concern Over Negative Consequences of Success Scale. *Psychological Reports, 56*, 331-338.
- Hyland, M. E. (1989). There is no motive to avoid success: The compromise explanation for success-avoiding behavior. *Journal of Personality, 57*, 665-693.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology, 69*, 85-98.
- James, L. R., James, L. A., & Ashe, D. K. (1990). The meaning of organizations: The role of cognition and values. In B. Schneider (Ed.), *Organizational Climate and Culture* (pp. 41-84). San Francisco: Jossey-Bass.
- Kanungo, R. & Conger, J. A. (1993). Promoting altruism as a corporate goal. *Academy of Management Executive, 7*, 37-48.
- Keller, G., Papasan, J., & Jenks, D. (2004). *The millionaire real estate agent*. New York: McGraw-Hill.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling, 2<sup>nd</sup> edition*. New York: Guilford Press.
- Kohn, A. (1992). *No contest: The case against competition*. New York: Houghton Mifflin.
- Kozlowski, S. W. J., Chao, G. T., & Morrison, R. F. (1998). Games raters play: Politics, strategies, and impression management in performance appraisal. In J. W. Smither (Ed.), *Performance appraisal: State of the art in practice* (pp. 163-205). San Francisco: Jossey-Bass.
- Krueger, J. (2000). The projective perception of the social world: A building block of social comparison processes. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 323-351). New York: Kluwer Academic/Plenum.
- Landis, R. S., Bean, D. J., & Tesluk, P. E. (2000). A comparison of approaches to forming composite measures in structural equation models. *Organizational Research Methods, 3*, 186-287.

- Lee, J. A., & Murnighan, J. K. (2001). The empathy-prospect model and the choice to help. *Journal of Applied Social Psychology, 31*, 816-839.
- Liang, J., Lawrence, R. H., Bennett, J. M., & Whitelaw, N. A. (1990). Appropriateness of composites in structural equation models. *Journal of Gerontology, 45*, S52-59.
- Marwell, G., & Hage, J. (1970). The organization of role-relationships: A systematic description. *American Sociological Review, 35*, 884-900.
- Miller, R. S. (1987). Empathic embarrassment: Situational and personal determinants of reactions to the embarrassment of another. *Journal of Personality and Social Psychology, 53*, 1061-1069.
- Mitchell, S. A. (1996). Relationships between perceived learning environment and intrinsic motivation in middle school physical education. *Journal of Teaching in Physical Education, 15*, 369-383.
- Moos, R. H. (1979). *Evaluating educational environments*. San Francisco: Jossey-Bass Publishers.
- Nunnally, J. (1978). *Psychometric theory, 2<sup>nd</sup> edition*. New York: McGraw-Hill.
- O'Malley, M. N., & Schubarth, G. (1984). Fairness and appeasement: Achievement and affiliation motives in interpersonal relations. *Social Psychology Quarterly, 47*, 364-371.
- Oswald, P. A. (1996). The effects of cognitive and affective perspective taking on empathic concern and altruistic helping. *Journal of Social Psychology, 136*, 613-623.
- Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Pleban, R., & Tesser, A. (1981). The effects of relevance and quality of another's performance on interpersonal closeness. *Social Psychology Quarterly, 44*, 278-285.
- Robins, C. J., Ladd, J., Welkowitz, J., Blaney, P. H., Diaz, R., & Kutcher, G. (1994). The Personal Style Inventory: Preliminary validation studies of new measures of sociotropy and autonomy. *Journal of Psychopathology and Behavioral Assessment, 16*, 277-300.
- Salovey, P., & Rodin, J. (1984). Some antecedents and consequences of social-comparison jealousy. *Journal of Personality and Social Psychology, 47*, 780-792.
- Santor, D. A., & Zuroff, D. C. (1997). Interpersonal responses to threats to status and interpersonal relatedness: Effects of dependency and self-criticism. *British Journal of Clinical Psychology, 36*, 521-541.

- Santor, D. A., Zuroff, D. C., Mongrain, M., & Fielding, A. (1997). Validating the McGill revision of the Depressive Experiences Questionnaire. *Journal of Personality Assessment*, *69*, 164-182.
- Sato, T. (2003). Sociotropy and autonomy: The nature of vulnerability. *Journal of Psychology*, *137*, 447-466.
- Schlenker, B. R., & Leary, M. R. (1982). Audiences' reactions to self-enhancing, self-denigrating, and accurate self-presentations. *Journal of Experimental Social Psychology*, *18*, 89-104.
- Schnitzer, P. K. (1977). The motive to avoid success: Exploring the nature of fear. *Psychology of Women Quarterly*, *1*, 273-282.
- Smith, R. H. (2000). Assimilative and contrastive emotional reactions to upward and downward social comparisons. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 323-351). New York: Kluwer Academic/Plenum.
- Stapel, D. A., & Koomen, W. (2001). I, we, and the effects of others on me: How self-construal level moderates social comparison effects. *Journal of Personality and Social Psychology*, *80*, 766-781.
- Stapel, D. A., & Koomen, W. (2005). Competition, cooperation, and the effects of others on me. *Journal of Personality and Social Psychology*, *88*, 1029-1038.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology*, *21*, 181-227.
- Tesser, A. (1991). Emotion in social comparison and reflection processes. In J. Suls & T. A. Wills (Eds.), *Social comparison: Contemporary theory and research* (pp. 237-260). Hillsdale, NJ: Erlbaum.
- Testa, M., & Major, B. (1990). The impact of social comparisons after failure: The moderating effects of perceived control. *Basic and Applied Social Psychology*, *11*, 205-218.
- Tresemmer, D. W. (1977). *Fear of success*. New York: Plenum.
- VanLeeuwen, D. M., & Mandabach, K. H. (2002). A note on the reliability of ranked items. *Sociological Methods & Research*, *31*, 87-105.
- Vonk, R. (2001). Aversive self-presentations. In R. M. Kowalski (Ed.), *Behaving badly: Aversive behaviors in interpersonal relationships* (pp. 79-115). Washington, DC: American Psychological Association.
- Vrugt, A., & Koenis, S. (2002). Perceived self-efficacy, personal goals, social comparison, and scientific productivity. *Applied Psychology: An International Review*, *51*, 593-607.

- Wheeler, L. (1991). A brief history of social comparison theory. In J. Suls & T. A. Wills (Eds.), *Social comparison: Contemporary theory and research* (pp. 237-260). Hillsdale, NJ: Erlbaum.
- White, P. H., Sanbonmatsu, D. M., Croyle, R. T., & Smittipatana, S. (2002). Test of socially motivated underachievement: "Letting up" for others. *Journal of Experimental Social Psychology*, 38, 162-169.
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, 90, 245-271.
- Wood, J. V., & Taylor, K. L. (1991). Serving self-relevant goals through social comparison. In J. Suls & T. A. Wills (Eds.), *Social comparison: Contemporary theory and research* (pp. 237-260). Hillsdale, NJ: Erlbaum.

## APPENDIX 1\* PRETEST SURVEY

### Empathic Concern (a dimension of empathy from the IRI; Davis, 1994)

1. I often have tender, concerned feelings for people less fortunate than me.
2. Sometimes I don't feel very sorry for other people when they are having problems. (R)
3. When I see someone being taken advantage of, I feel kind of protective towards them.
4. Other people's misfortunes do not usually disturb me a great deal. (R)
5. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (R)
6. I am often quite touched by things that I see happen.
7. I would describe myself as a pretty soft-hearted person.

### Interpersonal Sensitivity (Sato, 2003)

1. I am afraid of hurting other people's feelings.
2. I do things that are not in my best interest in order to please others.
3. I censor what I say because I am concerned that the other person may disapprove or disagree.
4. I am more apologetic to others than I need to be.
5. If I think somebody may be upset at me, I want to apologize.
6. I often put other people's needs before my own.
7. I am very sensitive to the effects I have on the feelings of other people.
8. I am very sensitive to criticism by others.
9. I worry a lot about hurting or offending other people.
10. I am easily persuaded by others.
11. I try to please other people too much.
12. I feel I have to be nice to other people.
13. I am very concerned with how people react to me.
14. It is hard for me to say "no" to other people's requests.
15. I am most comfortable when I know my behavior is what others expect of me.
16. I often let people take advantage of me.
17. I judge myself based on how others feel about me.
18. It is hard for me to let people know when I am angry with them.

### Scenario (Exline et al., in press)

*You are taking a challenging class that has an enrollment of 40 students. You know about half of the students from other classes that you have taken. After the first exam, your instructor returns your exams, and you see that you received an extremely high score. You feel very pleased with your performance. In fact, it turns out that you've received the highest score in the class.*

### STTUC Conditions

- 1) Belief that one is the target of upward comparison:

---

\* Unless otherwise noted, items are measured on a 5-point response continuum (1=strongly disagree to 5=strongly agree) and summed such that a higher score indicates a greater degree of agreement.

(R) = Item is reverse scored.

*To what extent do you agree or disagree that at least one of your classmates would engage in each of the following behaviors:*

-and-

*About how many of your classmates do you believe would do each of these things? (None, a few, about half, many, all)*

1. Compare their own grades to yours.
2. Use your grades as a goal to strive towards.
3. Recognize your grades as superior to theirs.
4. Strive to achieve similar grades to yours.
5. Believe they are less successful in the course than you are.
6. See themselves as inferior to you.

2 & 3) Belief & concern that others feel threatened by one's outperformance:

*To what extent do you agree or disagree that at least one of your classmates would themselves experience each of the following feelings after the announcement of your superior performance on the exam:*

-and-

*About how many of your classmates do you believe would experience each of these feelings? (none, a few, about half, many, all)*

-and-

*To what extent would you say you are concerned about this? (not at all, a little, somewhat, a lot, very)*

1. Embarrassed
2. Sad
3. Disappointed
4. Frustrated
5. Negative
6. Irritated
7. Anxious
8. Envious
9. Angry
10. Awkward being around you
11. Inferior to you
12. Hostile toward you
13. Intimidated by you
14. Wishing you would fail in the future
15. Vengeful toward you
16. Rejecting toward you

Propensity for Socially Motivated Underachievement (a dimension of the CONCOSS; Hong & Caust, 1985)

*Indicate the likelihood that you would do each of the following: (1=very unlikely to 5=very likely)*

1. Do less than my very best so that no one would be threatened.
2. Deliberately do average or mediocre work in order to allow someone else to do better than I.
3. Try to excel as much as possible, even if it means that my performance is way above everyone else's. (R)
4. When I see that I am doing very well, let up a little so that I will not considerably outperform my classmates.
5. Try not to get the highest grade in the class so that others might have a chance to get it.

Recognition Preference (adapted from Exline & Lobel, in press)

*Rank the following options for grade recognition in order of how much you would prefer each:*

1. grade unrecognized by my instructor other than being written on my exam,
2. grade recognized in private just between me and my instructor,
3. grade recognized in class by the instructor placing my name on an overhead, or
4. grade recognized in class by the instructor announcing it and having me raise my hand.

Appeasement & Avoidance (Exline & Lobel, 2001)

*Now suppose that after you discovered you had the highest grade in the class, one of your classmates turns to you, shaking his/her head and looking upset. He/she looks at you and says, "I can't believe I did so badly on this exam." How likely would you be to respond in each of these ways (1=very unlikely to 5=very likely):*

1. reassure them that their score isn't so bad (appeasement)
2. give them a sympathetic look (appeasement)
3. mention a recent test where you did poorly (appeasement)
4. talk about how unfair the test was (appeasement)
5. try to cover up your happiness about your success (appeasement)
6. actively try to make them feel better (appeasement)
7. say something sympathetic (appeasement)
8. say that you were just lucky (appeasement)
9. leave the classroom as soon as possible (avoidance)
10. change the subject (avoidance)
11. say nothing (avoidance)
12. pretend that you didn't hear them (avoidance)
13. avoid discussing your score (avoidance)

Reward Frequency (developed for the pre-test)

Indicate which of the following statements best applies to your college exam grades:

1. I never make an A on an exam
2. I don't typically make As and Bs on exams
3. I make average grades on exams (As, Bs, & Cs)
4. I typically make As on exams, but I make a B every now and then
5. I am a straight A student

Demographics

Gender

Classification

## APPENDIX 2\*

### AWARD-RECIPIENT SURVEY

#### Empathic Concern (adapted from the IRI; Davis, 1994)

1. I have tender, concerned feelings for people less fortunate than I am.
2. I feel sorry for other people when they are having problems.
3. When I see someone being taken advantage of, I feel protective towards them.
4. Other people's misfortunes usually disturb me.
5. When I see someone being treated unfairly, I feel pity for them.
6. I am often touched by unfortunate things that I see happen.
7. I would describe myself as a soft-hearted person.

#### Interpersonal Sensitivity (a dimension of Sociotropy from the SAS; identified by Sato, 2003)

1. I am afraid of hurting other people's feelings.
2. I do things that are not in my best interest in order to please others.
3. I censor what I say because I am concerned that the other person may disapprove or disagree.
4. I am more apologetic to others than I need to be.
5. If I think somebody may be upset at me, I want to apologize.
6. I find it difficult to say "no" to people.
7. I feel I have to be nice to other people.

#### Competitive Psychological Climate (Brown et al., 1998)

1. My manager frequently compares my results with those of other salespeople.
2. The amount of recognition you get in this company depends on how your sales rank compared to other salespeople.
3. Everybody is concerned with finishing at the top of the sales rankings.
4. My coworkers frequently compare their results with one another.

#### STTUC (developed for the proposed study)

To what extent would you say you are concerned about each of the following? (*not at all concerned, slightly concerned, somewhat concerned, concerned, very concerned*)

1. That your coworkers feel embarrassed about their own accomplishments as a result of the recent award(s) you have received?
2. That your coworkers feel sad about their own accomplishments as a result of the recent award(s) you have received?
3. That your coworkers feel disappointed in themselves as a result of the recent award(s) you have received?
4. That your coworkers feel frustrated that they have not achieved what you have?
5. That your coworkers feel irritated that they have not achieved what you have?
6. That your coworkers feel anxious as a result of the recent award(s) you have received?
7. That your coworkers feel envious of your achievements?
8. That your coworkers feel angry that they did not receive the award(s) you received?
9. That your coworkers feel awkward being around you since you received the award(s)?

---

\* Unless otherwise noted, items are measured on a 5-point response continuum (1=*strongly disagree* to 5=*strongly agree*) and summed such that a higher score indicates a greater degree of agreement.

10. That your coworkers feel inferior to you as a result of the recent award(s) you have received?
11. That your coworkers feel hostile toward you as a result of the recent award(s) you have received?
12. That your coworkers feel intimidated by you as a result of the recent award(s) you have received?
13. That since you've received your award(s), your coworkers would like you to fail in the future?
14. That your coworkers feel vengeful toward you as a result of the recent award(s) you have received?
15. That your coworkers will reject you as a result of the recent award(s) you have received?

Propensity for Socially Motivated Underachievement (a dimension of the CONCOSS; Hong & Caust, 1985)

Indicate the likelihood that you would do each of the following: (1=very unlikely to 5=very likely)

1. Do less than my very best so that no one would be threatened.
2. Deliberately do average or mediocre work in order to allow someone else to do better than I.
3. Try to excel as much as possible, even if it means that my performance is way above everyone else's. (R)\*
4. When I see that I am doing very well, let up a little so that I will not considerably outperform my colleagues.
5. Try not to win performance awards every single month so that others might have a chance at them.

Recognition Preference (adapted from Exline et al., in press)

Rank the following options in the order of your preference, with your most preferred option first: I would prefer my achievements at work...

1. went unrecognized.
2. were recognized in private just between me and my supervisor.
3. were recognized in writing, such as by placing my name in a company-wide newsletter.
4. were recognized in a public ceremony which identifies me as a high achiever.

Social Desirability (Short form of Marlowe-Crowne; Ballard, 1992; 1=true, 0=false)

1. It is sometimes hard for me to go on with my work if I am not encouraged. (R)
2. I sometimes feel resentful when I don't get my way. (R)
3. On a few occasions, I have given up doing something because I thought too little of my ability. (R)
4. There have been times when I felt like rebelling against people in authority even though I knew they were right. (R)
5. No matter who I'm talking to, I'm always a good listener.
6. There have been occasions when I took advantage of someone. (R)
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget. (R)

---

(R) indicates a reverse-scored item.

9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of others. (R)
12. I am sometimes irritated by people who ask favors of me. (R)
13. I have never deliberately said something that hurt someone's feelings.

Demographics

Gender

Age

### APPENDIX 3 COWORKER SURVEY

*Please focus on [award-recipient's name] and keep this person in mind as you answer the following items:*

#### Length of Relationship

*How long have you known this person? \_\_\_\_\_ years and \_\_\_\_\_ months*

#### Relationship Frequency (Marwell & Hage, 1970)

*How often do you interact with this person? (This can include any interaction, such as face-face contact with the person or communicating via phone or email.)*

1. about once a year or less
2. 2-5 times per year
3. 6-14 times per year (approximately once per month)
4. 15-49 times per year (several times per month)
5. 50-99 times per year (approximately once or twice per week)
6. 100-249 times per year (approximately 2-5 times per week)
7. 250 times per year or more (5 times a week or more)

*Please focus on this person's recently received award(s) as you answer the following:*

#### Outcome Variables (Derived from Exline & Lobel, 2001)

*To what extent do you agree or disagree that this person engages in the following behaviors... ”*

*Avoidance:*

1. Changes the subject when someone brings up the award(s).
2. Avoids discussing the award(s).
3. Pretends not to hear it when someone brings up the award(s) in conversation.
4. Says nothing when someone brings up the award(s) in conversation.
5. Leaves the room when the award(s) is(are) brought up

*Appeasement:*

1. Says they were just lucky to have received the award(s).
2. Reassures others that their performance isn't so bad.
3. Talks about how unfair the award distribution was.
4. Gives sympathetic looks to those who did not receive the award(s) they did.
5. Mentions a recent year when they did not receive any awards.
6. Tries to cover up their happiness about their award(s).
7. Actively tries to make others feel better about not receiving the award(s) they did.
8. Says something sympathetic to those who did not receive the award(s) they did.

#### Actual Threat Experienced (developed for the proposed study)

*Indicate the extent to which you agree or disagree that the following statements are true of your own feelings in light of the most recent awards ceremony. As a result of the recent awards ceremony...*

1. I feel embarrassed about my accomplishments.
2. I feel sad that I did not receive the award I wanted.

3. I feel disappointed in myself.
4. I feel frustrated that I have not achieved what other salespeople have achieved.
5. I feel irritated that I have not achieved what other salespeople have achieved.
6. I feel anxious because I have not achieved what other salespeople have achieved.
7. I feel envious of the achievements of those who have recently received awards.
8. I feel angry that I did not receive the award I wanted.

*In regards to those (in general) who received greater recognition than you did at the recent sales awards ceremony, to what extent do you agree or disagree that you feel:*

9. Awkward being around them.
10. Inferior to them.
11. Hostile toward them.
12. Intimidated by them.
13. That you would like them to fail in the future.
14. Vengeful toward them.
15. That you will reject them.

#### Competitive Psychological Climate (Brown et al., 1998)

1. My manager frequently compares my results with those of other salespeople.
2. The amount of recognition you get in this company depends on how your sales rank compared to other salespeople.
3. Everybody is concerned with finishing at the top of the sales rankings.
4. My coworkers frequently compare their results with one another.

#### Social Desirability (Short form of Marlowe-Crowne; Ballard, 1992; *1=true, 0=false*)

1. It is sometimes hard for me to go on with my work if I am not encouraged. (R)
2. I sometimes feel resentful when I don't get my way. (R)
3. On a few occasions, I have given up doing something because I thought too little of my ability. (R)
4. There have been times when I felt like rebelling against people in authority even though I knew they were right. (R)
5. No matter who I'm talking to, I'm always a good listener.
6. There have been occasions when I took advantage of someone. (R)
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget. (R)
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of others. (R)
12. I am sometimes irritated by people who ask favors of me. (R)
13. I have never deliberately said something that hurt someone's feelings.

#### Demographics

Gender

Age

## **APPENDIX 4 SURVEY COVER LETTER**

Dear Agents,

I am Stephanie Henagan, a doctoral student in the Management Ph.D. program at LSU. As part of my degree program, I am required to complete a dissertation, and I am requesting your help! I have spoken with [your manager], and she has agreed to help me out in return for a summary of my findings. I am studying the effects of public reward systems in the workplace, and I believe that the real estate industry is an ideal setting for this.

Please take a few minutes to complete the enclosed survey as honestly and candidly as possible and return it directly to me in the enclosed, self-addressed, postage-paid envelope. It will take approximately 10 minutes of your time and could have a tremendous impact on the field of management. In addition, the managers at [company] could learn a great deal about the effects of their reward system. It is very difficult to learn about the inner workings of the business world without some insight from those who are currently in it, such as yourself. Your participation is extremely valuable for the successful completion of my Ph.D. degree!

This study is completely confidential. The management at [company] will never see your name tied to any results. I will present them with a completely anonymous summary of responses in the aggregate. You will find enclosed a consent form that provides you with more details about the study. Please read the consent form thoroughly to fully understand the voluntary nature of your participation, the confidentiality, etc.

Thank you in advance for your cooperation and your time! It is truly appreciated.

Sincerely,

Stephanie C. Henagan  
Ph.D. Candidate, LSU

**APPENDIX 5**  
**SECOND SURVEY COVER LETTER**

Dear Agents,

Greetings! I am enclosing a follow-up survey to the one you received last month. This second survey completes my dissertation study on reward systems in the real estate industry by asking you to respond to some questions about your own feelings, and it may also include questions about one or more of your colleagues. Some of the items are redundant to those you answered previously, but please continue to answer them as honestly as possible.

Please complete the enclosed survey **by [date]** and return it directly to me in the enclosed, self-addressed, postage-paid envelope. It will take approximately 10 minutes of your time, and could have a tremendous impact on the field of management. In addition, the managers at [company] Realtors could learn a great deal about the effects of their reward system. Your participation is extremely valuable for the successful completion of my Ph.D. degree!

Again, this study is completely confidential. The management at [company] will never see your name tied to any results. I will present them with a completely anonymous summary of results in the aggregate. Please refer to the consent form you received with the previous survey to fully understand the voluntary nature of your participation, the confidentiality of the surveys, etc.

Thank you in advance for your cooperation and your time! It is truly appreciated.

Sincerely,

Stephanie C. Henagan  
Ph.D. Candidate, LSU

## **APPENDIX 6 INFORMED CONSENT**

### **RESEARCH PROCEDURES**

You are being asked to participate in a research project, the purpose of which is to learn about the effects of using public reward systems in the workplace. If you agree to participate, you will be asked to answer a number of questions about yourself and your responses to the reward system in your company. You will indicate your responses by filling in the corresponding bubbles on the attached form using a number 2 pencil. The survey should take approximately 10 minutes to complete. You will then return your survey in the enclosed, self-addressed, pre-paid envelope directly to the university researchers.

### **RISKS**

There are no foreseeable risks.

### **BENEFITS**

The primary benefits to you are the opportunity to contribute to your employer's knowledge about the possible effects of different forms of reward and compensation in the workplace. The benefit to society is that this project will provide management scholars with insight into the possible effects of public reward systems.

### **CONFIDENTIALITY**

The data in this study will be held completely confidential by the university researchers, unless release is legally compelled. You will return your completed survey directly to the researchers – your employer will not have access to your responses. Your survey will be coded so as to assist the researchers in matching your survey with those of your coworkers. Your name will not be tied in any way to any results that will be presented to your employer.

### **PARTICIPATION**

**You must be 18 years or older to participate.** Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from this study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.

### **CONTACT**

This study is being conducted by Stephanie C. Henagan of the Department of Management at Louisiana State University. She may be reached at (225) 578-6114 or [scase@lsu.edu](mailto:scase@lsu.edu) for questions or to report a research-related problem. You may contact the LSU Institutional Review Board at (225) 578-8692 if you have any questions regarding your rights as a research participant. This project has been reviewed according to LSU procedures governing your participation in this research.

### **CONSENT**

By completing and returning the enclosed survey, you acknowledge that you have read this form and agree to participate in this study.

**APPENDIX 7**  
**REMINDER POSTCARD**

Dear Agent,

This is just a reminder to please complete the survey you received from me a few weeks ago! Even though the deadline has passed, your responses are still needed. Your responses in particular are especially important, as you were selected as someone who could answer questions about one or more of your colleagues. Please return your survey as soon as you can. If you no longer have it and need another copy, please send me an email ([scase@lsu.edu](mailto:scase@lsu.edu)) or call me (578-6114) to let me know, and I'll get another right out to you.

I can't thank you enough for your help!

Sincerely,  
Stephanie C. Henagan, LSU

**APPENDIX 8**  
**REMINDER E-MAIL**

Hi! This is just a friendly reminder about the survey I sent to you last month. For those of you who have already returned them, THANK YOU SO MUCH! I really appreciate your time in filling those out.

If you haven't returned the survey yet, please try to take a moment to fill it out and drop it in the mail. I really need everyone's participation to make my study legitimate! You don't know how much I appreciate your help on this!

Please let me know if you have any questions, have misplaced your survey, etc. I will be glad to help you. Also, your comments on the back of the form are welcome!

Thanks!  
Stephanie Henagan

## VITA

Stephanie Case Henagan was born in Metairie, Louisiana, in 1976, and completed her early education in Mobile, Alabama. She received her bachelor of science in elementary education and her master of business administration with a concentration in human resource management from Louisiana State University in 1998 and 2000, respectively. Stephanie taught management courses at LSU throughout her doctoral program and was awarded the 2004 James W. Reddoch Award for outstanding teaching by a doctoral student in the Department of Management. She is currently employed as an assistant professor of management at Northern Illinois University in DeKalb, Illinois, and is actively involved in the Academy of Management and the Southern Management Association as a presenter, discussant, reviewer, and committee member. Her research interests include social-comparison processes and interpersonal relationships in the workplace. She is the co-author of an article appearing in the *Academy of Management Journal* and was awarded the 2005 Ronald B. Schuman Best Graduate Student Paper Award by the Management History Division of the Academy of Management.