SELF-REGULATORY FOCUS, ORGANIZATIONAL CLIMATE AND TRAINING EFFECTIVENESS

A Thesis in
Hotel, Restaurant, and Institutional Management

by
Xinyuan Zhao

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The thesis of Xinyuan Zhao was reviewed and approved* by the following:

Karthik Namasivayam  
Assistant Professor of Hospitality Management  
Thesis Advisor  
Chair of Committee

Albert (Bart) Bartlett  
Associate Professor of Hospitality Management

James L. Farr  
Professor of Psychology

William L. Harkness  
Professor of Statistics

Anna S. Mattila  
Associate Professor of Hospitality Management  
Professor-in-Charge Graduate Program

*Signatures are on file in the Graduate School
ABSTRACT

The current study was designed to investigate the effects of regulatory focus on training effectiveness, moderated by psychological safety. Specifically, the study wanted to test the hypothesized effects: (1) whether chronic promotion and prevention focus individuals have different acquired learning; (2) whether chronic and situation-induced regulatory foci have an interactive effect on individuals’ acquired learning; (3) whether psychological safety moderates the effects of regulatory focus on individuals’ acquired learning; and (4) whether different patterns of acquired learning lead to different behavioral patterns of employees. A laboratory experiment was conducted to test the hypotheses. 207 voluntarily recruited college students watched the 4½ minutes training video on six skills to select job applicants, and then provided human resources managers hire/reject recommendations of the given job applicants. The study found that chronic promotion focus individuals were more likely to acquire skills about how to select job applicants, whereas chronic prevention focus individuals were more likely to acquire skills about how to avoid mistakes in selecting job applicants. In addition, when psychological safety was high, chronic promotion focus individuals had different acquired learning across situational inductions of promotion focus and prevention focus, while chronic prevention focus individuals did when psychological safety was low. The relationship between acquired learning and individuals’ behavioral pattern was also demonstrated. However, the interaction effect between chronic and situation-induced regulatory foci was not
statistically significant. The results of the study were discussed with limitations.

Finally, the study was concluded with theoretical and practical implications.
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>x</td>
</tr>
<tr>
<td>Chapter 1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Rationale for the Present Study</td>
<td>3</td>
</tr>
<tr>
<td>Purpose and Research Questions of the Study</td>
<td>6</td>
</tr>
<tr>
<td>Chapter 2 Review of the Literature</td>
<td>7</td>
</tr>
<tr>
<td>Training and its Effectiveness</td>
<td>7</td>
</tr>
<tr>
<td>Definitions</td>
<td>7</td>
</tr>
<tr>
<td>Evaluating Training Effectiveness</td>
<td>7</td>
</tr>
<tr>
<td>Training Motivation</td>
<td>9</td>
</tr>
<tr>
<td>Definition</td>
<td>9</td>
</tr>
<tr>
<td>Framework of Training Motivation</td>
<td>10</td>
</tr>
<tr>
<td>Individual Characteristics</td>
<td>10</td>
</tr>
<tr>
<td>Personality and cognitive ability.</td>
<td>11</td>
</tr>
<tr>
<td>Job-related variables</td>
<td>11</td>
</tr>
<tr>
<td>Demographics</td>
<td>12</td>
</tr>
<tr>
<td>Situational Factors</td>
<td>13</td>
</tr>
<tr>
<td>Organizational and team level climate</td>
<td>13</td>
</tr>
<tr>
<td>Manager/peer support</td>
<td>13</td>
</tr>
<tr>
<td>Distal and Proximal Motivational Processes in Training</td>
<td>14</td>
</tr>
<tr>
<td>Self-Regulation in Training</td>
<td>16</td>
</tr>
<tr>
<td>Self-Regulation</td>
<td>16</td>
</tr>
<tr>
<td>Self-Regulation in Work Motivation</td>
<td>18</td>
</tr>
<tr>
<td>Self-Regulation in Training Motivation</td>
<td>20</td>
</tr>
<tr>
<td>Regulatory Focus Theory</td>
<td>24</td>
</tr>
<tr>
<td>Self-Discrepancy Theory</td>
<td>24</td>
</tr>
<tr>
<td>Regulatory Focus Theory</td>
<td>25</td>
</tr>
<tr>
<td>Regulatory strength</td>
<td>29</td>
</tr>
<tr>
<td>Regulatory mode</td>
<td>29</td>
</tr>
<tr>
<td>Regulatory fit</td>
<td>29</td>
</tr>
<tr>
<td>Distinguishing Regulatory Focus Theory from Other Motivation Theories</td>
<td>30</td>
</tr>
<tr>
<td>Integrating Regulatory Focus Theory into Work Motivation Theories</td>
<td>33</td>
</tr>
<tr>
<td>Empirical Investigations of Regulatory Focus Theory in Workplace</td>
<td>34</td>
</tr>
<tr>
<td>An Interactive Psychology Perspective</td>
<td>43</td>
</tr>
</tbody>
</table>
Psychological Climate ...............................................................44
Climate within Organizations ................................................44
Psychological Safety ...............................................................46
  Definition ..............................................................................46
Psychological Safety Influences Training .........................48
Psychological Safety as a Mediator of Contextual Variables ...49
Psychological Safety Affects Self-Regulation .......................50

Chapter 3  Methods ......................................................................................................56

Specifying the Conceptual Framework ......................................56
Data Collection ........................................................................59
  Demonstration of Causal Relationships ................................59
  Laboratory Experiment ........................................................61
  Participants ............................................................................63
  Measures ...............................................................................65
    Chronic Regulatory Focus .................................................66
    Situation-Induced Regulatory Focus .................................70
    Psychological Safety ........................................................71
    Training Acquisition .......................................................72
    Behaviors ..........................................................................74
Tests of Content Validation ....................................................75
  Training Skills .....................................................................76
  Video Development ............................................................80
  Descriptions of Job Applicants .........................................81
Scenarios ..................................................................................87
  Scenarios of Situation-Induced Regulatory Focus ...............88
  Scenarios of Psychological Safety .....................................89
  Pilot Tests of the Scenarios .................................................90
Data Collection Procedure .....................................................93
Data Analysis ...........................................................................94

Chapter 4  Results ........................................................................................................99

Descriptive Statistics ..................................................................99
  Data Screening ......................................................................99
  Assignment of Participants to Groups Based on their Chronic Regulatory Focus .................................................100
Overall Descriptive Statistics ................................................103
Descriptive Statistics of Experimental Groups .....................104
Manipulation Checks ..............................................................106
Hypotheses Tests ......................................................................108
  Testing Hypotheses 1a & b .................................................108
  Testing Hypothesis 1c .......................................................111
  Testing Hypothesis 2 ........................................................115
LIST OF FIGURES

Figure 2.1 Chronic promotion focus participants ........................................................52
Figure 2.2 Chronic prevention focus participants .........................................................52
Figure 2.3 The general conceptual model .................................................................55
Figure 3.1 The specified conceptual model ...............................................................58
Figure 3.2 Timeline of the laboratory experiment ......................................................62
Figure 4.1 Effects of chronic regulatory focus on the number of acquired approach and avoidance skills .................................................................111
Figure 4.2 Effects on the number of acquired approach skills ..................................113
Figure 4.3 Effects on the number of acquired avoidance skills ...............................114
Figure 4.4 Effects in Hypothesis 2 ........................................................................116
Figure 4.5 The plot of the observed vs. predicted values .........................................119
Figure 4.6 Estimation plot of the number of acquired approach skills ....................121
Figure 4.7 Estimation plot of the number of acquired avoidance skills ....................122
LIST OF TABLES

Table 3.1 Description of the Sample .............................................................. 65
Table 3.2 Items of the Chronic Regulatory Focus ........................................ 68
Table 3.3 Manipulation Check Items of Psychological Safety ..................... 72
Table 3.4 Ten Skills for Selecting Job Applicants ........................................ 78
Table 3.5 Items for Job Applicants’ Description........................................... 84
Table 3.6 Job Applicant Descriptions ......................................................... 87
Table 3.7 Results of Two Pilot Studies ......................................................... 92
Table 4.1 The Results of EFA ................................................................. 101
Table 4.2 Descriptive Statistics ................................................................. 103
Table 4.3 Descriptive Statistics of Experimental Groups ............................ 105
Table 4.4 Results of the Manipulation Checks ........................................... 106
Table 4.5 Results of the Curve Estimation ................................................ 120
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Training employees is a big organizational investment (Noe, 2002). In a 2005 ranking on best training practices, the top 100 organizations spent 4.7 billion dollars on training and development and hired 17,635 training professionals (Training, 2005). Therefore, organizations expect a high return from their training investments in terms of enhanced work performance as well as employees’ positive reactions, learning and changed behaviors (Kirkpatrick, 2000). However, low returns on training investment are common in organizations (Cromwell & Kolb, 2004). More research is required to investigate the causes of low returns on training investment, and to suggest ways to increase training effectiveness (Cromwell & Kolb, 2004).

Training effectiveness research has traditionally concentrated on explaining training techniques and trainees’ abilities, but has been found to be insufficient to explain training effectiveness. Researchers suggest that training effectiveness models should incorporate motivation theories to explain training success (DeMatteo, Dobbins, & Lundby, 1994). Thus, in addition to conventional understanding of training design and trainees’ abilities, the training motivation approach has recently drawn scholars’ attention (Colquitt, LePine, & Noe, 2000) and has become an area “needing further development and research” (Alvarez, Salas, & Garofano, 2004, p. 385). Colquitt and colleagues (2000) reviewed training motivation studies over the last 20 years and provided a
theoretical framework for training motivation research. The present research draws on and develops from this framework.

The current study integrates two important concepts, namely regulatory focus and psychological safety, within current training motivation theories. The study has four specific goals. First, the study examines whether chronic and situation-induced regulatory focus will influence trainees’ acquisition, and second, whether chronic regulatory focus interacts with situation-induced regulatory focus in affecting training acquisition. Third, the current study tests whether the effects of regulatory focus on training acquisition are moderated by psychological safety. Finally, the study examines whether different patterns of learning acquired during training influence trainees’ usage of that learning.

This dissertation is arranged as follows. In the current chapter, rationale of the present study and research questions are presented. In Chapter 2, theories and empirical studies in training, regulatory focus theory, and psychological safety are reviewed to build conceptual bases and arguments from which the hypotheses are developed. Then, Chapter 3 presents and discusses a laboratory experiment designed to examine the hypotheses. Chapter 4 presents the results of the experiment. Concluding the study, Chapter 5 discusses the results of the experiment as well as the limitations and provides potential implications for researchers and practitioners.
Rationale for the Present Study

Work motivation theories have been conceptualized into three streams: (1) need-motive-value research, (2) cognitive choice research, and (3) self-regulation-metacognition approach (Kanfer, 1990).

First, need-motive-value research emphasized “the role of personality, stable dispositions, and values as a basis for behavioral variability” (Kanfer, 1990, p. 81). Theories of motivation subscribing to this view describe how personality-based variables determine employees’ behavior. Such theories can be broken down into three broad streams: need, competence and self-determination, and environmental conditions theories. Need theories focus on innate motivational forces that lead individuals to satisfy personal needs. Competence and self-determination theories concentrate on the effects of human motives on individuals’ behavioral patterns. Finally, environmental conditions theories explain how individuals’ learned dispositions (such as motive for success) influence behavioral expression.

Second, cognitive choice theories focused on “cognitive processes involved in decision making and choice” (Kanfer, 1990, p. 81). In this view, employees are conceived as making decisions about choices aimed at maximizing personal outcomes. Individuals make choices about (1) initiating effort on a certain task, (2) persisting in a certain amount of effort, and (3) expending effort over time. Expectancy theory encapsulates cognitive choice theories by saying that employees’ expectation about outcomes as well as the value of outcomes and instrumentality of the process will determine how employees perform.
Finally, self-regulation and metacognition theories explain “the motivational processes underlying goal-directed behaviors” (Kanfer, 1990, p. 82). Unlike the cognitive theories described earlier, these theories focus on explaining self-governing cognitive mechanisms that transform individuals’ motives into behavior and performance. Kanfer (1990) said that theories based in the self-regulation-metacognition approach had the distinct advantages of being able to explain the “links between intentions, goals, behavior, and performance, all of which have potential for clarifying the processes underlying strategy development, learning, and performance of complex, sequential behavior patterns” (p. 82).

The first two streams have been extensively investigated in previous training motivation studies (Colquitt et al., 2000). However, little research has explained how self-regulation processes impact individuals’ motivation to acquire and use training content.

Motivation theories also differ within a distal/proximal framework (Kanfer, 1990; Kanfer & Ackerman, 1989). Distal motivational theories emphasize motivational constructs and processes that have an effect on goal choice and future efforts. For example, personality-based theories discuss how personality traits influence individuals’ actions. On the other hand, proximal theories explain “motivational constructs and mechanisms,” such as goal setting, that “control the initiation and execution of actions during engagement with the task” (Kanfer, 1990, p. 82). Self-regulation is considered a proximal factor that mediates the effects of distal factors (e.g., personality traits and individuals’ expectations) on employees’ motivation and behaviors (Kanfer, 1990; Kanfer & Ackerman, 1989).
Several self-regulation constructs (such as approach/avoidance motivation) have been considered in work motivation research. These constructs suggest that individuals approach desired outcomes and avoid undesired outcomes when engaging in work tasks. However, these constructs did not explain different strategies individuals use to regulate their actions. The literature terms these strategies ‘self-regulation.’ According to Higgins (1997, 1998), self-regulation strategies have two distinctive regulatory foci – a promotion focus (self-regulation for accomplishment and success) and a prevention focus (self-regulation for preventing mistakes). Further, individuals’ regulatory foci can be either chronic, that is similar to inherent traits, or situation-induced. Researchers suggest that it is important to account for the person-environment interaction (Kristof-Brown, Zimmerman, & John, 2005). It is, therefore, conceivable that individuals’ chronic regulatory focus (person) interacts with situational cues (environment) to determine behavioral and outcome patterns.

As noted, research should account for the influences of situational variables on individuals’ behavior. Training research has investigated environmental effects on trainees’ behavior and training success (Colquitt et al., 2000). This study extends this perspective by explaining the role of psychological safety in employees’ behaviors during training (Edmondson, 1999). Psychological safety refers to individuals’ feeling regarding their ability to actively employ themselves without fear of negative consequences to self-image, status, or career (Kahn, 1990). Psychological safety is considered a proximal variable mediating the effects of dimensions of organizational climate on employees’ behaviors (Edmondson, 1999; Kahn, 1990).
Taken together, the most significant theoretical contribution of the present study is the extension of theories about training motivation to include employees’ regulatory foci and psychological safety. The study will examine the main and interactive effects of chronic and situation-induced regulatory focus on training acquisition, moderated by psychological safety. The study also has implications for managers through a more thorough understanding of important motivational factors influencing training. As a result, managers will be able to design and develop more fruitful training programs.

**Purpose and Research Questions of the Study**

The purpose of the present study is to examine the main and interactive effects of chronic and situation-induced regulatory foci on employees’ acquisition and application of training, moderated by employees’ perceptions of psychological safety. Specifically, the study is designed to answer the following research questions:

1. Will a prevention focus and a promotion focus have different effects on training acquisition? If so, what are these differences?
2. Will the effects of chronic regulatory foci on training acquisition change due to various situational cues?
3. Will the effects of chronic and situation-induced regulatory focus on training acquisition change with differing psychological safety?
Chapter 2
Review of the Literature

Training and its Effectiveness

Definitions

Training is “a planned effort by a company to facilitate employees’ learning of job-related competencies” (Noe, 2002, p. 4). An enhancement of employees’ competencies is said to lead to increased organizational performance (e.g., Tracey, Hinkin, Tannenbaum, & Mathieu, 2001). Accordingly, effectiveness of training refers to “benefits that a company and its trainees receive from training” (Noe, 2002, p. 462), and has been described as containing both training acquisition and transfer of training within its scope (Baldwin & Ford, 1988; Tracey et al., 2001). Training acquisition refers to the extent to which trainees acquire content from a training program. Transfer of training is the application of training acquisition and refers to the extent to which trainees subsequently employ the content acquired during training. The current study investigates motivational factors that determine training acquisition and its subsequent application.

Evaluating Training Effectiveness

Previous research has explored components of training effectiveness and also provided a theoretical basis for the current study. Kirkpatrick’s (1959) model has been
widely accepted as a measure of training effectiveness. In this model, training effectiveness is evaluated by measuring four factors: individuals’ reaction, learning, behavior, and organizational outcomes. First, reaction refers to individuals’ responses to training programs. Recent research suggests that individuals’ reactions can be affective (like or dislike) and/or cognitive (useful or not useful) (Arthur, Bennett, Edens, & Bell, 2003). Second, measuring the extent to which trainees absorbed the content of the training program permits evaluation of the learning that occurred. Third, it is important that individuals translate the acquired training content into actual behavior at work. Accordingly, Kirkpatrick suggests behavioral change at work is one factor contributing to a measure of training effectiveness. Finally, all training should impact organizational results such as reductions of costs, turnover, absenteeism, and grievances and increase quality and quantity of production with improved morale. Several studies have since attempted to improve Kirkpatrick’s model. For example, Kraiger, Ford, and Salas (1993) separated learning into cognitive outcomes, skill-based outcomes, and affective outcomes. Alliger and colleagues (1989; 1997) examined the relationships among four levels of Kirkpatrick’s model and found that individuals’ utility reactions have stronger effects on learning or transfer of training than affective reactions.

The current research investigates both training acquisition (learning) and trainees’ subsequent application (behaviors). Training acquisition and trainees’ application of training content comprise training effectiveness (Tracey & Tews, 2005). As noted above, training acquisition is the extent of learning. Trainees’ application of training content is trainees’ subsequent behaviors toward the demonstration of trained skills. Further, training acquisition and trainees’ subsequent behaviors are the outcomes of individuals’
perceptions of utility and affective reactions. Thus, in the current study, training acquisition and trainees’ subsequent behaviors are measured as indicators of training effectiveness.

Training effectiveness (acquired learning and application of that learning) is said to be influenced by a number of factors. Research in causes of training effectiveness focuses on individual and situational variables affecting “training outcomes before, during, and after training interventions” (Alvarez et al., 2004, p. 406). Training motivation is a key variable determining training outcomes (Colquitt et al., 2000). Individuals’ motivation to acquire and apply their learning has important implications for organizational outcomes. Accordingly, the current study extends training motivation research by explaining the roles of regulatory focus and psychological safety, two important variables that may affect individuals’ propensity to acquire and apply training content.

**Training Motivation**

**Definition**

Training motivation has been defined as “the direction, intensity, and persistence of learning-directed behavior in training contexts” (Colquitt et al., 2000, p. 678). Training motivation happens in learning-oriented activities “before, during, and after training” (Salas & Cannon-Bowers, p. 479). As suggested, pre-training motivation processes contain impacts on trainees’ actions before, during and after training (Tracey et
al., 2001). Consequently, pre-training motivation processes are more influential in determining effectiveness of training programs. As a result, the current study is interested in the effects of pre-training motivation on training effectiveness.

*Framework of Training Motivation*

Traditionally, training research has focused on how methods (such as lectures or case studies) and settings (such as classroom or instructor) of training influence reactions, learning and behavioral changes in trainees (Tannenbaum & Yukl, 1992). Thus, conventional research has ignored the impact of individuals’ motivation on training effectiveness (Tannenbaum & Yukl, 1992).

Potential predictors of training motivation have to be first accounted for in explaining training motivation before the presentation of the training motivation framework. Colquitt et al. (2000) reviewed previous research in training motivation and conducted a meta-analysis of the underlying processes and variables influencing individuals’ training motivation. They found that training motivation is influenced by both individual characteristics (i.e., personality, job-related variables, and demographics) and situational factors (i.e., organizational climate and manager or peer support).

*Individual Characteristics*

Training motivation research has focused on how individual characteristics (i.e., personality, job-related variables, and demographics) influence training effectiveness.
**Personality and cognitive ability.** An individual’s personality dimensions (i.e., conscientiousness, emotional stability, openness to experience, extraversion, and agreeableness) are said to interact with phases of a training program when determining the extent of training success (Herold, Davis, Fedor, & Parsons, 2002). Specifically, openness of employees was associated with performance (instructors’ evaluation of employees’ capability to use Japanese) within a cross-culture training program, while cognitive ability determined employees’ acquisition (measured as exam scores of employees’ proficiency in Japanese) (Lievens, Harris, Keer, & Visqueret, 2003). Gully, Payne, Koles and Whiteman (2002) investigated how the effectiveness of error training (measured as declarative knowledge of job, task performance, and job self-efficacy) was associated with individuals’ cognitive ability, openness to experience, and conscientiousness across experimental training conditions: error-encouragement (instructions to encourage trainees to make errors), error-avoidance (instructions to aware trainees to avoid mistakes), and no error-instructions. The effectiveness of error training relies on cognitive ability or dispositional traits of trainees. Compared to low cognitive ability or less open individuals, high cognitive ability or more open individuals benefited more from error-encouragement training (Gully et al., 2002).

**Job-related variables.** Job-related variables include individuals’ relevant responses to jobs and organizations. Trainees’ expectations of gaining valued outcomes did not mediate, but moderated, the effects of employer support on training participation (Tharenou, 2001). Further, employees are said to experience different types of stress in a learning environment: individuals may experience either hindrance or challenge stress. Hindrance stress results in restricting while challenge stress results in promoting mastery,
personal growth, and future gains. Both types of stress are positively related to
exhaustion which reduces learning performance. Hindrance stress in the work
environment was negatively associated with motivation to learn and resulted in low
learning performance. Challenge stress at work environment, on the other hand, was
positively connected to motivation to learn and high learning performance (LePine,
LePine, & Jackson, 2004). Finally, individuals’ cognitive and affective reactions have
different effects on individuals’ learning. Specifically, individuals’ cognitive reactions,
including their beliefs and behavioral intentions about training, were positively associated
with learning and behavior of trainees. In contrast, individuals who disliked the training
program (negative affective reactions) acquired more knowledge than those who liked the
training program (positive affective reactions) (Tan, Hall, & Boyce, 2003).

Demographics. Employees’ diverse social demographics (such as age, gender,
family responsibilities, and education level) and employment-related (organizational
tenure, hierarchical position and employment status) characteristics influence to varying
degrees the effectiveness of non-mandatory training (Renaud, Lakhdari, & Morin, 2004).
Employee differences (i.e., goal orientation, conscientiousness, anxiety, and demographic
characteristics) first influence individuals’ perceived behavioral control, subjective
norms, and attitudes, and then influence their motivation to learn and consequent training
outcomes (Wiethoff, 2004).
Situational Factors

Training motivation research has also investigated the effects of situational factors (i.e., organizational climate and manager or peer support) on training effectiveness (e.g., Tracey & Tews, 2005).

Organizational and team level climate. Research in organizational climate describes the effects of individuals’ perceptions and experience of organizations on training effectiveness. Researchers suggest that when organizations regarded training as mandatory, employees would perceive training as more important, make training central to the achievement of organizational goals, and, subsequently, exhibit greater training motivation (Tsai & Tai, 2003). Further, the composition of a training group and trainees’ prior experience interacted to affect outcomes in diversity training: trainees with prior experience in diversity training were more likely to respond positively to an internally diverse (heterogeneous) training group, while trainees without experience were not affected by group composition (Roberson, Kulik, & Pepper, 2001). Finally, organizational learning culture that supports continuous learning and change was positively associated with job satisfaction and motivation to transfer learning (Egan, Yang, & Bartlett, 2004).

Manager/peer support. Research in manager/peer support has investigated the role of a supportive work environment on training acquisition. In a post-training setting, the perceived supportiveness of the work environment was found to moderate the effects of goal setting on training transfer. Employees who set goals for themselves are more likely to transfer their acquired learning in a work environment that supported skill
acquisition and transfer rather than those individuals who were in an unsupportive work environment (Richman-Hirsch, 2001). Team leaders’ support for application of learned skills at work increased transfer of training acquisition. Further, the effects of team leaders’ support on trainees’ behaviors was mediated by trainees’ perceptions of the degree to which teammates expect the use of knowledge acquired during training (Smith-Jentsch, Salas, & Brannick, 2001).

In addition, workplace physical design also has an effect on employee behavior. Research has shown that physical design influences employees’ perceptions and experience of organizations. Positive perceptions encourage employees to behave in ways consistent with their training. Therefore, a supportive, both physical and psychological, work environment results in better training outcomes (Kupritz, 2002). In sum, team level variables, work environmental factors (organization support, supervisor support, and peer support) have positive impact on employees propensity to apply learned behaviors.

**Distal and Proximal Motivational Processes in Training**

Individual and situational influences were discussed till now. These influences have been integrated in a theoretical framework which suggests that some variables have more immediate effects on training motivation than others (Colquitt et al., 2000). Therefore, it is important to more clearly distinguish between those elements that have an immediate effect and other that have a more distant effect.
Kanfer (1990) suggests that the various factors that affect individuals’ training motivation may be visualized on a timeline with the distal factors determining individuals’ choices on cognitive resource allocation to proximal factors influencing individuals’ performance.

Distal motivational processes describe choices individuals make in allocating all or some of their cognitive resources towards attainment of a goal. In contrast, individuals’ proximal motivational processes influence their choices about how to distribute effort across on-task and off-task activities during task engagement (Kanfer & Ackerman, 1989). Important to note here is that distal processes refer to those cognitive activities individuals engage in prior to actual engagement in a task. Proximal processes are those that influence individual actions once the task has commenced. The processes that individuals adopt in making their choices about effort allocation are described as self-regulatory activities.

As noted, Colquitt et al. (2000) proposed a theory of training motivation. According to the theory, individual and situational variables are considered distal motivational processes, whereas trainees’ self-regulation is a proximal motivational process determining training effectiveness. Colquitt et al’s (2000) meta-analytic review found that proximal motivational processes partially mediate the effects of distal motivational processes on training outcomes.

It is important to account for motivational influences that are immediate and proximal to the task. While training research over the past five years has included many distal motivational factors, the more proximal processes, such as self-regulation, have not been examined. Training motivation theories that do not consider self-regulation will be
less likely to fully explain proximal training motivation processes and their subsequent impact on training effectiveness. Research has also considered the effects of individuals’ self-efficacy and control processes on training effectiveness but has failed to account for regulatory foci (Higgins, 1997, 1998). Regulatory foci refer to different ways in which individuals regulate their actions to obtain desired outcomes and to avoid undesired outcomes. Individuals may have either a promotion or a prevention focus. Individuals with a promotion focus self-regulation style refer to their own aspirations and accomplishments when managing their actions. Individuals with a prevention focus, on the other hand, refer to their own responsibilities and concerns for safety when managing their actions (Higgins, 1997, 1998). The current study focuses on how employees’ regulatory foci influence training acquisition. The next section more fully explains the operation of self-regulatory processes.

**Self-Regulation in Training**

**Self-Regulation**

Self-regulation refers to individuals’ efforts to alter or manage their own psychological and behavioral responses to external stimuli (Vohs & Baumeister, 2004). Self-regulation consists of changes and adjustments individuals make, based on their present state, in order to achieve a set of goals (Vohs & Baumeister, 2004). Self-regulation is constituted of three interdependent processes: self-monitoring, self-evaluation, and self-reaction (Kanfer & Ackerman, 1989). Self-monitoring processes
allocate individuals’ attention to desired goal states; goal states refer to specific behaviors and the consequences of the behavior. Self-evaluation processes compare individuals’ current performance with the desired goal state. Finally, individuals generate reactions toward the results of the comparison. Self-reaction processes include evaluations of self-satisfaction (like or dislike the results) and task-specific capabilities (whether individuals can deal with any perceived discrepancy). Overall, employees’ self-regulation emphasizes regulating their cognitive resources to attain their goals, dependent on feedback and psychological conditions in the workplace. Psychological conditions determine to what extent employees engage or disengage in their work. As a psychological condition, psychological safety influences individuals’ self-regulation (Kahn, 1990).

Self-regulation exists in a training setting. Given cognitive abilities of employees, degrees of self-regulatory motivation have positive influences on skill acquisition (Kanfer & Ackerman, 1989). In a training setting, self-regulation processes will determine the level of effort and persistence employees will apply towards goal, or learning attainment (Stevens & Gist, 1997). Taken together, self-regulation motivates trainees to take actions in training to acquire training content.

The following discussion on self-regulation in the context of work motivation provides a framework for understanding self-regulation in training motivation.
Self-Regulation in Work Motivation

Theories of work motivation attempt to explain “the set of psychological processes that cause the initiation, direction, intensity, and persistence of behavior” (Klein, 1989, p. 150). Work motivation theories attempt to explain how employees can be motivated to regulate their behaviors in ways that maximize positive organizational outcomes. Accordingly, research in motivation endeavored to describe determinants of individuals’ choices among action alternatives (choice motivation) or choices of particular actions during attempts to attain goals (control motivation) (Kuhl, 1984). Some research focused on how employees’ behaviors might be changed by internal factors such as individuals’ self-efficacy, while other research wished to discover how employees’ behaviors were motivated by external influences such as providing specific goals and incentives. This line of research has adopted two theoretical perspectives – namely, social learning theory and control theory (Klein, 1989).

Some theorists applied concepts from social learning theory, suggesting that self-efficacy (i.e., employees’ perceived ability to fulfill a specific task) is important to explain motivation (Bandura, 1977, 1986). They said that discrepancies between employees’ perceived competencies (self-efficacy) and outcome expectations generate corrective behavior. Thus, according to this view, individuals are motivated to behave in a particular fashion when such discrepancies are made apparent.

Control theory focuses on how individuals allocate attention to a particular action (Klein, 1989). The theory also considers feedback loops in relation to goals individuals seek to achieve. Individuals are said to employ several automatic or conscious attentional
processes in response to external stimuli (or feedback). Such feedback permits individuals to regulate or control their behavioral responses (Carver & Scheier, 1981; Kanfer & Ackerman, 1989; Klein, 1989). Adopting a control theory framework, research in self-regulation has identified three sub-processes: (1) standard setting, (2) discrepancy detection, and (3) discrepancy reduction (Ashford & Tsui, 1991, p. 253). Employees are described as first setting standards for their performances. Then, they detect any discrepancies between the standards they set and their actual performance. Finally, they take actions to reduce such discrepancies. Further, Ashford and Tsui (1991) suggest that “for managers, self-regulation does not occur in a vacuum,” but in a more interpersonal organizational system within which individuals’ control relies on others’ positive or negative feedback (p. 252). Thus, situational factors are said to moderate self-regulation processes in the workplace.

Overall, social learning theory and control theory described some antecedents to individuals’ motivation to behave in particular ways. However, these theories provide only a partial explanation. More recently, researchers have developed the notion of regulatory focus (promotion and prevention focus), which more clearly explains self-regulation (Higgins, 1997, 1998).

In self-regulation process, individuals have two perceived purposes: to “achieve ideals or make gains” (a promotion focus) and “to fulfill obligations or avoid losses” (a prevention focus) (Meyer, Becker, & Vandenbergh, 2004, p. 998). Self-regulation mediates the effects of needs, values, personality, incentives, self-efficacy, and outcome expectancy on goal choice, goal mechanisms and behavior. Consequently, individuals who are relatively susceptible to internal forces of behavior (i.e., needs, values and
personality) are more likely to have a promotion focus, to work toward the accomplishment of ideals. In contrast, individuals who are more susceptible to external inducements (i.e., rewards and punishments) are more likely to have a prevention focus, inclining to work toward the fulfillment of obligations. Further, employees’ self-regulatory foci influence their goal choices. Employees with a promotion focus tend to set or accept more difficult goals than those with a prevention focus. As a result, employees who have a promotion focus and choose more difficult goals are willing to exert more effort and persist longer in goal-directed behavior than those with a prevention focus (Meyer et al., 2004).

Before proceeding to more fully describe the operation of regulatory focus, it is important to explain how self-regulation relates to training motivation.

**Self-Regulation in Training Motivation**

Consistent with research in work motivation, studies accounting for motivational processes relevant to training effectiveness have employed self-efficacy and control as explanatory variables.

Studies on the role of self-efficacy in training have shown that it is positively connected to training motivation and effectiveness (e.g., Chuang, Liao, & Tai, 2005; Cunningham & Mahoney, 2004; Holladay & Quinones, 2003; Machin & Fogarty, 2003). This approach suggested self-efficacy to be an internal determinant of training outcomes. Other studies, from the control theory aspect, have focused on approach/avoidance motivation and achievement goal orientations (e.g., Bereby-Meyer & Kaplan, 2005).
Approach and avoidance motivations differ as a function of the value of the end goal being sought by an individual. Potentially positive or desirable events drive individual approach motivated behavior. Contrarily, potentially negative or undesirable events explain individuals’ avoidance motivated behavior (Elliot & Thrash, 2002). Individuals are said to engage in behaviors depending on the characteristics of the immediate situation. A positive or desirable event motivates individuals to “approach”, while a negative or undesirable event motivates avoidance behavior. Thus, individual’s behavior is explained in terms of the individuals’ situational contexts. This aspect suggests an individuals’ approach/avoidance motivation to be an external determinant of training outcomes.

Research adopting the perspective of achievement/avoidance motivation explains individuals’ motivation under training conditions as a need to attain competence and avoid incompetence. Whether individuals have an achievement or avoidance motivation, they are said to have in each condition: (1) a mastery goal or a drive to develop competence through maintenance of training content, and (2) a performance goal or a need to demonstrate personal competence relative to others (Dweck, 1999; Dweck & Elliott, 1983; Elliot & Harackiewicz, 1996; Elliot & McGregor, 2001).

A number of studies have investigated and found support for the operation of approach/avoidance motivation in training context. For example, Kozlowski et al. (2001) found that the individuals’ personal goal orientations (either learning or performance) and their abilities interacted with their training goals (either performance or mastery) to affect training outcomes such as training performance, and self-efficacy. Specifically, they stated that mastery goals, in combination with learning orientation and trainees’ acquired
learning, positively influenced trainees’ post-training self-efficacy (i.e., trainees’ perceived ability to perform the acquired training content). That is, individuals with learning orientation and mastery goals obtained the best training outcomes. Differently, Towler and Dipboye (2001) found that trainees’ mastery orientation interacted with trainers’ individual characteristics (their ability to organize and the level of their expressiveness) to determine trainees’ acquisition from training and performance in the tasks. Individuals with a high mastery orientation evidenced the poorest problem-solving performance after they attended a structured but inexpressive lecture. In contrast, individuals with a low mastery orientation did not respond to the effects of organization or expressiveness. Bereby-Meyer and Kaplan’s (2005) study suggested that achievement goals motivated individuals before, during and after training; individuals with low rather than high performance-approach goals were more likely to employ training content at work.

Two perspectives, namely, individuals’ approach/avoidance motivation and their mastery/performance goals were combined to derive four goals that motivate individuals (Dweck, 1999; Dweck & Elliott, 1983; Elliot & Harackiewicz, 1996; Elliot & McGregor, 2001). Employees, then, may have a mastery-approach, mastery-avoidance, performance-approach, or performance-avoidance goal influencing their behavior. Individuals who adopt mastery-approach goals are more likely to use the task standard (requirements of the task) and their intentions to maximize potential attainment of the standard as referents to seek success. On the other hand, individuals who adopt mastery-avoidance goals are more likely to use the task standard and their intentions to maximize potential attainment of the standard as referents to avoid failure. Individuals who adopt
performance-approach goals are more likely to compare themselves with others in order to achieve success. Finally, individuals who adopt performance-avoidance goals are more likely to compare themselves with others to avoid failure.

Current research in approach/avoidance motivation does not provide adequate information about the various ways in which individuals “approach pleasure and avoid pain” (Higgins, 1997, p. 1280). Although Elliot and McGregor (2001) provide a relevant typology by combining approach/avoidance motivation with different types of goals, they still did not explain underlying motivational processes leading to performance toward goal achievement/avoidance. Researchers also failed to identify the role of various types of end-states in different approach/avoidance motivational processes (Higgins, 1997).

More recently, Higgins (1997, 1998) pointed out that individuals may adopt different processes in approaching a desired goal and avoiding an undesired goal. The suggestion that individuals’ regulatory focus may vary (they may have either a promotion focus or a prevention focus) extended extant explanations of individuals’ self-regulatory patterns. As noted, Kanfer and associates (1989, 1990) conceived of individuals’ regulatory focus as more proximal to actual behaviors. Schmidt and Ford (2003) who found that learners’ regulatory focus mediated the effects of goal orientation on learning outcomes provided empirical support for this view. Chen and colleagues (2000) found proximal motivational processes (i.e., state-like individual differences including state anxiety, task-specific self-efficacy, and goals) mediated the relationship between distal individual differences (i.e., trait-like individual differences including cognitive ability, general self-efficacy, and goal orientation) and learning performance. This view has also been supported in training settings. For example, training environments stimulating
individuals’ self-regulation – proximal training motivation process – tend to enhance individuals’ training application “in a more difficult and complex task situation” (Kozlowski et al., 2001, p. 22). Hence, in the present study, the effects of individuals’ regulatory focus in a training situation will be examined. The next section describes the concept of regulatory focus more completely.

**Regulatory Focus Theory**

Higgins (1997) expanded the concepts of his self-discrepancy theory (1989) and proposed a more complete explanation for individuals’ motivational processes through the regulatory focus theory.

**Self-Discrepancy Theory**

According to self-discrepancy theory, individuals’ emotional vulnerabilities and, consequently, their behavioral motivation result from relations among different types of self-beliefs (Higgins, 1989). Two psychological dimensions – namely, domains of the self and standpoints on the self, determine different representations of the self-state. Higgins (1989) described three kinds of self-domains:

“(1) the *actual* self, which is your representation of attributes that someone (yourself or another) believes you actually possess;
(2) the *ideal* self, which is your representation of the attributes that someone (yourself or another) would like you, ideally, to possess (i.e., a representation of someone’s hopes, wishes, or aspirations for you); and
(3) the *ought* self, which is your representation of the attributes that someone (yourself or another) believes you should or ought to possess (i.e., a representation of someone’s sense of your duty, obligations, or responsibilities).” (p. 94)

Higgins (1989) also identified two kinds of standpoints on the self (individuals’ two perspectives on perceiving self):

“(1) your *own* personal standpoint, and
(2) the standpoint of some significant *other* (e.g., mother, father, spouse, close friend).” (p. 94)

Higgins (1989) combined three types of self-domains and two standpoints on the self and developed six basic kinds of self-state representations: (1) actual/own, (2) actual/other, (3) ideal/own, (4) ideal/other, (5) ought/own, and (6) ought/other. He described the first two representations (i.e., actual/own and actual/other) as a person’s self-concept and the other four representations as self-directive standards or self-guides. According to him, individuals are motivated to obtain matches between their self-concept and self-guides, and any discrepancies between self-concepts and self-guides have various patterns of outcomes. These relationships form the basis of regulatory focus theory.

**Regulatory Focus Theory**

Extending Freud’s (1961) pleasure principle (individuals generally approach pleasure and avoid pain), regulatory focus theory argues that individuals adopt different ways to both approach pleasure and avoid pain (Higgins, 1997, 1998). Psychologists
widely accepted the hedonic principle that individuals tend to approach pleasure and
avoid pain (Freud, 1961). Based on this hedonic principle, they developed
approach/avoidance motivation theories that suggest individuals tend to approach desired
end-states and avoid undesired end-states (Higgins, 1997). However, Higgins (1997,
1998) found that reliance on the hedonic principle restricts development of motivational
theories. Higgins argued: (1) that the hedonic principle failed to include or explain
various self-regulation strategies; (2) that the hedonic principle ignored potential
alternative conceptualizations of self-regulation; and (3) that the hedonic principle was
not absolutely necessary to explain motivational consequences. Therefore, Higgins
proposed regulatory focus theory to expand understanding of the hedonic principle.

Regulatory focus, “a principle that underlies the hedonic principle but differs
radically in its motivational consequences”, explained the fundamental nature of
approach and avoidance motivation (Higgins, 1997, p. 1280). Regulatory focus theory
proposed that individuals adopt different ways in both approaching pleasure and avoiding
pain. That is, individuals will have pleasure or experience pain depending on whether
they could approach their desired end-state or avoid their undesired end-state by different
self-regulation strategies (as noted earlier, self-regulation may be either promotion or

Regulatory focus theory added new understanding about employees’ self-
regulation process. As noted, Kanfer and Ackerman (1989) suggest that individuals’ self-
regulation consists of three distinct processes: self-monitoring, self-evaluation, and self-
reactions. Regulatory focus theory expands conceptualization of these processes. Firstly,
self-regulation is said to be activated when employees have trouble meeting their goals
(Kanfer & Ackerman, 1989). According to regulatory focus theory, individuals activate various patterns of self-regulation depending on discrepancies that exist between different self-concepts and actual states. Therefore, activation is not solely dependent on goal achievement. Secondly, self-evaluation processes compare employees’ current performances with desired goal states (Kanfer & Ackerman, 1989). Based on such self-monitoring, individuals allocate cognitive resources, which, in turn, generate different affective, cognitive, and behavioral responses. According to regulatory focus theory, individuals will compare the actual performance with both desired end-states and undesired end states, depending on chronic regulatory focus or situational cues. Finally, self-reactions are constituted of self-satisfaction and self-efficacy expectations (Kanfer & Ackerman, 1989). Regulatory focus theory expanded the conceptualization to suggest that individuals may have different patterns of emotional responses depending on their self-regulatory foci. According to this conceptualization, individuals’ emotional responses may be organized along two continua: a cheerfulness-dejection continuum and a quiescence-agitation continuum.

An individuals’ regulatory focus can be either chronic or situation-induced (Higgins, 1997, 1998). Chronic regulatory focus means that individuals’ history of success with either a promotion or prevention focus will lead them to use the correspondingly successful regulatory focus in a new task (Cesario et al., 2004). Thus, chronic regulatory focus is conceptualized as a dispositional variable of individuals and relatively consistent cross-situationally. Specifically, personal needs and self-guides influence a person’s regulatory focus (Higgins, 1997, 1998). That is, individuals’ nurturance needs will cause the adoption of a promotion focus in self-regulatory
processes, while security needs will lead individuals to adopt a prevention focus. Further, the ideal-self as a self-guide causes individuals to select a promotion focus, while the ought-self as a self-guide causes individuals to use a prevention focus.

Higgins and his colleagues demonstrated that these two regulatory foci can also be situation-induced (e.g., Shah & Higgins, 2001). Momentary situations vary according to potential rewards and punishments. A gain and no-gain situation exists in situations in which individuals are rewarded depending on whether they attain desired outcomes. Such situations result in a promotion focus. On the other hand, loss and no-loss conditions exist when individuals are punished depending on whether they avoid undesired outcomes. This will result in individuals adopting a prevention focus.

Promotion focus and prevention focus whether chronic or situationally induced, have different impacts on individuals’ behaviors. Individuals with a promotion focus will regulate their behaviors differently than individuals with a prevention focus (Shah & Higgins, 2001). Promotion-focused individuals will be sensitive to the presence or absence of desired end-states, will use eagerness strategies, will insure hits and guard against errors of omission, and will have cheerfulness-dejection emotion responses such as disappointment, dissatisfaction, or sadness. On the contrary, persons with a prevention focus will be sensitive to the presence or non-presence of undesired end-states, will use vigilance strategies to insure correct-rejection and guard against errors of commission, and will have quiescence-agitation emotion responses such as feeling uneasy, threatened, or afraid.

Individuals’ regulatory focus consists of three dimensions: regulatory strength, mode, and fit.
Regulatory strength. Strength of regulatory focus refers to individuals’ access to each type of regulatory focus. Some individuals more readily access promotion focus while others access prevention focus. Further, some individuals are more promotion focused than others. Research suggests that regulatory strength moderates the effects of regulatory focus on individuals’ behavior. Higgins, Shah, and Friedman (1997) found that stronger regulatory focus is associated with stronger emotional responses to goal attainment. When individuals had a stronger promotion focus, they experienced stronger cheerfulness-dejection emotions. Similarly, stronger prevention focus resulted in acute quiescence-agitation emotions.

Regulatory mode. Self-regulation has two regulatory modes, namely locomotion (i.e., movement from state to state) and assessment (i.e., evaluating an object in terms of its merits and demerits when comparing alternatives) (Kruglanski et al., 2000). Individuals with an assessment mode critically evaluate entities or states in relation to alternatives in order to decide relative quality. On the other hand, individuals with a locomotion mode have commitment of psychological resources to initiate and maintain goal-related actions. Empirical research suggests that individuals who were high in locomotion but low in assessment appeared the most adjusted (Hong, Tan, & Chang, 2004). Individuals feeling of regulatory fit – as noted below either “right” or “wrong” – can be transferred to locomotion and assessment modes (Avnet & Higgins, 2003).

Regulatory fit. Regulatory fit has drawn more research attention than either regulatory strength or mode. Regulatory fit occurs when the strategies of a person’s goal pursuit are compatible with the person’s regulatory focus (either chronic or situational) (Freitas & Higgins, 2002; Higgins, 2000). Individuals adopt two goal attainment
strategies: eagerness and vigilance. As noted earlier, individuals are said to apply an eagerness strategy when they attempt to maximize their hits and minimize misses in achieving goals. Contrarily, individuals are said to apply a vigilance strategy when individuals attempt to maximize correct rejections and minimize false alarms in attaining a goal. Individuals who follow an eagerness strategy, therefore, seek to maximize gain, while those who follow a vigilance strategy seek to minimize loss. Research has demonstrated that regulatory fit affects the enhancement of motivational strength during goal pursuit (Spiegel, Grant-Pillow, & Higgins, 2004), and information search (Cesario, Grant, & Higgins, 2004).

A natural fit exists between individuals with a promotion focus and eagerness strategies, and between individuals with a prevention focus and vigilance strategies (Freitas, Liberman, & Higgins, 2002; Higgins, 2002; Higgins, Idson, Freitas, Spiegel, & Molden, 2003). Individuals sense there is a fit between their strategies and goal attainment and, consequently, feel their strategies are “right.” On the other hand, if individuals sense a violation of such fit, they will feel their strategies are “wrong” (Camacho, Higgins, & Luger, 2003). In this case, individuals’ motivational strategy is impacted.

**Distinguishing Regulatory Focus Theory from Other Motivation Theories**

Regulatory foci are more proximal in determining individuals’ task performance than other motivational processes.
First, previous studies have differentiated regulatory foci from goal, feedback, and self-regulation. According to this view, individuals manage their behaviors by evaluating and reacting to discrepancies between performance and goals (Ilies & Judge, 2005). In contrast, regulatory focus theory concentrates on providing explanations for goal-directed behaviors during actual task engagement (e.g., Shah, 2003; Shah & Kruglanski, 2003). In other words, self-regulation may be considered reactive while regulatory focus suggests a more proactive solutions.

Second, according to achievement motivation theory (McClelland, Atkinson, Clark, & Lowell, 1953), individuals’ feelings based on previous task achievement are elicited when they engage in a new task. Regulatory focus theory expanded this notion by proposing two distinct types of achievement pride – promotion pride vs. prevention pride – and by proposing promotion and prevention inclinations toward goal attainment (Cesario et al., 2004; Higgins et al., 2001). Individuals feel pride if they continue to employ promotion focus based on their previous success of adopting promotion focus, while individuals also feel pride if they continue to employ prevention focus based on their previous success of adopting prevention focus.

Third, approach/avoidance motivation theory, as noted before, claims that individuals approach desired end-states and avoid undesired end-states (Elliot & Covington, 2001). Thus, an assumption of this theory is that individuals anticipate end-states prior to actually engaging in a task. In contrast, regulatory focus theory proposes different ways of approaching and avoiding different types of desired and undesired end-states when individuals are actually engaged in a task (Higgins, 1997, 1998). Regulatory focus theory points out the threshold “when success feedback is more likely to increase
expectancies and maintain (or induce) approach motivation and when failure feedback is more likely to decrease expectancies and maintain (or induce) avoidance motivation” (Forster, Grant, Idson, & Higgins, 2001, p. 253). Thus, performance feedback, outcome expectancies and approach/avoidance motivation are considered more distal processes affecting individuals’ performance.

Fourth, individuals’ promotion or prevention focus with associated strategic inclinations are “independent of” their goal orientations (performance vs. learning) and intrinsic vs. extrinsic motivation (Forster, Higgins, & Bianco, 2003, p. 162). That is, no matter which goal orientation (performance or learning) and which type of motivation (intrinsic or extrinsic) individuals have, an individual with a promotion focus applies eagerness strategies and one with a prevention focus applies vigilance strategies to regulate actions. Thus, when engaging in a task, individuals’ regulatory foci are more proximal to their behaviors and performance than their goal orientation or intrinsic/extrinsic motivation.

Finally, self-regulatory foci are different from self-determination. Self-determination implies individuals have complete control over their own goal achievements. However, some individuals’ regulatory foci are not associated with self-determination because individuals’ promotion or prevention focus can either be chronically determined or be affected by other people (significant others as noted earlier) (Kluger, Stephan, Ganzach, & Hershkovitz, 2004). Further, regulatory foci are more specified towards individuals’ goal pursuit and performance than individuals’ goal setting and sense of control. Thus, compared to self-determination, regulatory foci are more proximal to the goal and performance and more fully explain individuals’ self-regulation.
Overall, regulatory focus theory described a different dimension – more proximal meta-level factors – of individuals’ motivation, while other theories relied on relatively distal motivational variables.

**Integrating Regulatory Focus Theory into Work Motivation Theories**

Although “developed outside the mainstream work motivation literature,” regulatory focus theory has “recently been found to contribute to our understanding of workplace behavior” (Meyer et al., 2004, p. 992). Accordingly, some researchers have been interested in integrating regulatory focus theory into work motivation theories. As noted earlier, Meyer et al. (2004) integrated regulatory focus theory and other motivation theories and specified the antecedents, processes, and potential outcomes of self-regulatory foci of employees. However, Meyer et al. (2004) used regulatory focus theory to explain individuals’ perceived purposes of goal regulation, but not the whole regulation process. Brockner and Higgins (2001) used emotions at work as an example to integrate regulatory focus theory and such work motivation theories as goal-setting and expectancy-valence. They argued that regulatory focus theory specified different ways individuals approach their desired outcomes and avoid undesired outcomes. Higgins and his colleagues suggest that regulatory focus theory is a general principle that can be used to understand employees’ behaviors in the workplace. Summarizing, theories of self-regulation, self-discrepancy, and regulatory focus were reviewed till now. Regulatory focus theory has contributed to an understanding of employees’ behaviors in the workplace. The next section first reviews empirical studies in employee behavior.
(especially on leadership). Subsequently, this section summarizes the influential mechanisms of regulatory foci on individuals with a view to develop the hypotheses of the current study.

*Empirical Investigations of Regulatory Focus Theory in Workplace*

Regulatory focus theory has been first tested generally for human behaviors. Examining hypothesis generation and discounting in cause attribution from the perspective of regulatory focus theory, Liberman et al. (2001) found that individuals with a promotion focus tend to generate more hypotheses, concern themselves with omitting a correct hypothesis, and simultaneously endorse multiple alternative hypotheses. In contrast, individuals with a prevention focus tend to generate fewer hypotheses, concern themselves with not endorsing a wrong hypothesis, and discount alternative hypotheses. Shah and Higgins (2001) found that individuals evaluate objects which generate emotions consistent with their regulatory foci (i.e., individuals with a promotion focus appraise cheerful things faster, while individuals with a prevention focus evaluate quiescent events more efficiently). The studies found consistent results in other settings such as decision making (Higgins, 2002), action intention (Freitas, Liberman, Salovey, & Higgins, 2002), task fulfillment (Forster et al., 2003), judgmental processes (Higgins & Spiegel, 2004), and prospect theory (Kluger et al., 2004).

Several studies have applied regulatory focus theory to explain employee behavior in organizations. One study found that in contrast to a prevention focus, a promotion focus facilitates creative insight and creative generation (Friedman & Forster,
Van-Dijk and Kluger (2004) suggested that in order to build an effective feedback system, managers should fit the reward or punishment system to employees’ regulatory focus in terms of their occupation, values and motives. Markman, Baldwin and Maddox (2005) explored how individuals’ regulatory focus affected their ability to acquire new categories of information: participants with a promotion focus performed better when the payoffs consisted of all gains, whereas participants with a prevention focus performed better when the payoffs comprised all losses. Taking a multilevel approach integrating studies in climate, individual differences and self-regulation, Wallace and Chen (in press) demonstrated that individual differences and contextual variables play an important and unique role in explaining production and safety performance through their influence on employees’ regulatory focus. Specifically, they found that safety climate and conscientiousness predicted promotion and prevention regulatory focus, which mediated the effects of safety climate and conscientiousness on safety performance.

Regulatory focus theory has also extended leadership research. Leaders’ chronic regulatory focus as well as situation-induced regulatory focus have been shown to influence leader-subordinate interaction and to further subordinates’ goal attainment (Forster et al., 2003). Sassenberg, Kessler and Mummendey (2003) suggested that if an individual self-categorizes as a member of a group, he or she will allocate resources to the group based on his or her self-regulation process. They found specifically that an individual with a promotion focus has in-group favoritism when allocating positive resources, while an individual with a prevention focus demonstrates in-group favoritism when allocating negative resources. This implies that the leader-member-exchange (LMX) process may be influenced by leaders’ regulatory focus. However, only the
chronic regulatory focus of subordinates was said to predict LMX (Medvedeff & Lord, 2006). Wu, McMullen, Neubert and Yi (2006) found that after controlling for employee demographic characteristics, personality, and leadership styles, the promotion focus of leaders was positively related to employees’ creativity and innovation whereas a leaders’ prevention focus was not.

As for training effectiveness, the impacts of promotion or prevention focus were not absolutely positive or negative. As noted, regulatory focus theory implies that individuals’ promotion focus or prevention focus will lead to different behavioral strategies. Promotion focus individuals use eagerness behavioral strategies and want to acquire knowledge as much as possible, whereas prevention focus individuals use vigilance behavioral strategies and want to acquire knowledge for minimum requirements.

However, other research implies different effects of promotion and prevention focus on training outcomes. Research has shown that accountability, i.e., trainees’ sense of their responsibility to learn and transfer knowledge and skills, is positively associated with training outcomes (DeMatteo et al., 1994). Trainees with a high sense of fulfilling their job responsibilities or a prevention focus can display positive learning and be willing to transfer learning to the workplace. On the other hand, trainees with a promotion focus may redirect their attention from a focus on the outcomes of training toward the regulation process itself (Kanfer & Ackerman, 1989). That is, they may expend more energy on behaviors regulating themselves to accomplish personal goals instead of on the learning process and organizational outcomes. Hence, trainees with a
promotion focus may be less effective learners. It is therefore important to understand the effects of promotion or prevention focus on training outcomes.

Although not pertinent to this study, it must be noted that a few studies have been conducted in consumer behavior using the concept of regulatory focus. The studies found that self-regulatory focus plays a role in explaining individual behavior in consumption setting (Aaker & Lee, 2006; Avnet & Higgins, 2006; Chen, Ng, & Rao, 2005; Chernev, 2004; Dholakia, Gopinath, Bagozzi, & Nataraajan, 2006; Louro, Pieters, & Zeelenberg, 2005; Wang & Lee, 2006).

In sum, empirical studies have tested the application of regulatory focus theory in employee and consumer behavior disciplines. The studies have insightfully suggested five different ways in which regulatory foci affect individuals’ behaviors: accessibility, information processing, memory search, engagement, and behavioral strategies.

First, accessibility was commonly used to explain the effects of regulatory focus (Liberman et al., 2001; Shah & Higgins, 2001; Shah, Higgins, & Friedman, 1998). Higgins and his colleagues stated that individuals with a promotion or prevention focus demonstrate different patterns of accessibility of information. When a message is compatible with individuals’ regulatory focus, they demonstrate greater recall of the message content (Aaker & Lee, 2001). Employees with a promotion focus seek accomplishment of work tasks and therefore information consistent with this is more readily accessed.

Second, information processing has also been used in a few studies to explain the effects of regulatory focus. Individuals have limited cognitive resources and consequently have to select and search for information that “confirms their prior
attitudes, initial decisions, or commitment to an alternative” (Wang & Lee, 2006, p. 29). Accordingly, individuals rely on their regulatory focus as a guide to allocate cognitive resources to selectively process information (Wang & Lee, 2006). Moreover, the message might be easier to process when the message is primed to be consistent with individuals’ way of thinking about issues which involve potential positive or negative outcomes (Lee & Aaker, 2004). Thus, messages that are primed to be consistent with individuals’ promotion focus thinking are more likely to be accepted by promotion focused individuals. For example, instructions detailing ways in which to accomplish a particular task will be more readily accepted by promotion focus individuals. In contrast, messages that are primed consistent with individuals’ prevention focus thinking are more likely to be accepted by prevention focused individuals. For example, instructions detailing how individuals may avoid mistakes in executing a task will appeal to prevention focused individuals. In a training situation, trainees with a promotion focus are more likely to be concerned with acquiring skills and accomplishing a task. In this case, trainees will seek more information about skills related to what they should do in work tasks (approach skills). On the other hand, trainees with a prevention focus are more likely to seek information about what they should not do (avoidance skills).

Third, previous studies demonstrated the effects of regulatory focus on individuals’ memory search: compared to individuals with a prevention focus, those with a promotion focus demonstrated memory search for novel responses (Friedman & Forster, 2001). Accordingly, employees with promotion focus are interested in the success of work tasks and search memory for novel skills about what they should do to achieve their goals. In contrast, employees with prevention focus on avoiding mistakes
in the workplace and consequently, they may limit search to well-recognized patterns of responses.

Fourth, individuals have greater engagement in learning and remembering skill content that sustains their regulatory foci. This also leads to a higher level of engagement or confidence in their reactions toward the training content, and to their feeling “right” in recalling their selective learning acquisition (Avnet & Higgins, 2003). Hence, since a promotion focus is concerned with accomplishment of work tasks and a prevention focus is concerned with avoiding work mistakes, employees with a promotion focus may be more engaged in obtaining skills about how to do work tasks (approach skills), whereas employees with a prevention focus may have greater engagement in learning skills related to what they should not do (avoidance skills).

Finally, different regulatory foci may lead individuals to adopt different behavioral strategies. Lockwood, Sadler, Fyman and Tuck (2004) stated that individuals with a chronic promotion focus tend to employ eagerness strategies with additive behaviors. That is, individuals with a promotion focus adopt novel and an increased range of actions that will lead to desired outcomes. Individuals with a chronic prevention focus, on the other hand, tend to conduct vigilance strategies with subtractive behaviors. Prevention focused individuals tend to restrict their range of actions deleting those behaviors they believe may result in undesirable outcomes. Trainees with a promotion focus might seek out skills helpful to engaging in activities that lead to desired outcomes; in contrast, trainees with a prevention focus might pay attention to skills that may help them avoid activities that may result in undesired outcomes.
In sum, individuals’ decision making styles, information processing, and behavior patterns differ based on their regulatory foci. In a classroom setting, Leung and Lam (2003) investigated the effects of teachers’ regulatory foci on both their approach behavioral strategies and their avoidance behavioral strategies. Teachers exhibiting a promotion focus conducted more approach strategies (e.g., praise) but less avoidance strategies (e.g., punishment) than teachers displaying a prevention focus.

Consistent with the preceding discussions on the effects of regulatory focus, it is expected that trainees with a promotion focus are more likely to acquire skills to fulfill tasks correctly (approach skills), while trainees with a prevention focus are more likely to acquire skills to avoid mistakes at work (avoidance skills). Therefore,

*Hypothesis 1a.* Employees with a chronic promotion focus will be more likely to retain those skills that improve accomplishment of their work tasks.

*Hypothesis 1b.* Employees with a chronic prevention focus will be more likely to retain those skills that avoid mistakes within their work tasks.

Research has argued that regulatory foci of human beings can be either chronic or situationally induced. Most of these studies have implicitly assumed that given the same situational-induction, individuals with different chronic regulatory focus respond with different levels of chronic regulatory focus. Yet, the role of the situation has been under-investigated. Little research exists on understanding whether individuals’ implicit chronic regulatory focus alters based on the situation they confront. Management
research perspectives suggest that attention has to be paid to potential interaction between dispositional (or chronic) and situationally-induced regulatory focus (Mowday, 1993; Rousseau, 1997). Based on empirical investigations, Shah, Higgins, and Friedman (1998) suggested “a strong person-situation effect” existed “whereby strategic inclinations are stronger when situation-induced regulatory focus matches (vs. mismatches) performers’ chronic regulatory focus” (p. 291). However, their study did not directly test moderation. In addition, their operationalization self-guide strength, as described in the method section) of regulatory focus (did not permit statement of interaction to be made with precision. Van-Dijk and Kluge (2004) also suggested future experiments to explore the possible interaction between chronic and situational regulatory focus. Leung and Lam (2003) regarded the omission of the potential interaction between chronic and situation-induced regulatory focus as a limitation of their study.

Specifically, the current study predicts the interaction between chronic and situation-induced regulatory foci in four situations. First, in a situation inducing promotion focus, individuals with a chronic promotion focus tend to have stronger intentions to apply promotion focus to regulate their actions and acquire more skills about how to improve task completion in training settings.

Second, in a situation inducing prevention focus, individuals with a chronic promotion focus tend to have less intention to apply promotion focus to regulate their actions and then, in training settings, acquire fewer skills on improving accomplishment of the job.

Third, in a situation inducing prevention focus, individuals with a chronic prevention focus tend to have stronger intentions to apply a prevention focus to regulate
their actions and then, in training settings, acquire more skills on avoiding mistakes at work.

Fourth, in a situation inducing promotion focus, individuals with a chronic prevention focus tend to have less intention to apply a prevention focus to regulate their actions and then, in training settings, acquire fewer skills on avoiding mistakes at work.

_Hypothesis 1c._ Chronic and situation-induced factors will have an interactive effect on training acquisition such that in the matched situations with chronic regulatory focus, individuals will have stronger relationships between regulatory foci and training acquisition than those in the mismatched situations.

As noted above, research has argued for an interaction between chronic and situation-induced regulatory foci. For example, Freitas, Azizian, Travers and Berry (2005) found that individuals’ regulatory foci interacted with motivational stimuli to determine individuals’ behaviors during evaluation. However, an overall context frames this interaction. Organizational conditions such as reward systems, group composition, leadership, and technology also influence the adoption of regulatory strategies. Hence, it is important to account for organizational contexts that may moderate the relationship between individuals’ chronic or situationally-induced regulatory focus and outcomes. The current study will consider the moderation of psychological safety on the relationship between regulatory focus and training outcomes. The next section briefly reviews literature on interactive psychology before discussing psychological safety.
Interactive psychologists provided a theoretical background to support the notion in the current study that a contextual variable, psychological safety, moderates the relationship between regulatory focus and training outcomes. Ostroff (1993) emphasized, “the interactionist perspective denies the primacy of either traits or situations in the determination of responses and emphasizes an interaction between personal and situational characteristics” (p. 57). Researchers have argued that an individual behavior is a function of both the individuals’ innate characteristics and the situation (Lewin, 1936; O’Reilly, 1991; Roberts, Hulin, & Rousseau, 1978; Schneider, 1983). In a recent study, Cote (2005) suggested social interactions as the context of emotion regulation which was traditionally regarded as an individual’s internal process. Based on the study, she argued that emotion regulation was influenced by situational constraints.

In this study, situational variables are seen as influencing action at two levels. First, as noted in the previous section, at a location more proximal to action choices, individuals’ chronic regulatory focus is influenced by the situation. Second, at a more distal location and seen as an overarching context in which more proximal decisions are made, variables such as psychological safety influence individuals’ behavior choices.

Interactions with others (peers and supervisors) help employees build beliefs that “specify how desired outcomes can be attained and undesirable ones avoided” (Rousseau, 1988, p. 143). Accordingly, it is suggested that an interactive effect exists between individuals’ regulatory focus and organizational context. Various candidate variables such as manager support and peer support present themselves as potential organizational
contexts that moderate individuals’ regulatory focus and outcomes. In this study, psychological safety is considered a key organizational context variable influencing individuals’ actions.

**Psychological Climate**

**Climate within Organizations**

Several terms have been applied to describe organizational contexts, including psychological climate, organizational climate, and organizational culture (Parker et al., 2003). Climate within organizations can be conceptualized as being both a perception and a description (Rousseau, 1988). In this study, climate within an organization refers to employees’ perceptions of the organizational contexts in which they behave and respond (Rousseau, 1988). Employees are said to work differently in various organizational climates and have behaviors based on the choices individuals made (Hellriegel & Slocum, 1974).

Organizational climate has been conceptualized as a shared perception about the organization among its employees (Glick, 1985, 1988). In early research, organizational climate has been defined as “a set of attributes which can be perceived about a particular organization and/or its subsystems, and that may be induced from the way that organization and/or its subsystems deal with their members and environment” (Hellriegel & Slocum, 1974, p. 256). Organizational climate consists of organizational, rather than
psychological, variables that provide an organizational context in which individuals
decide their actions (Glick, 1985).

While climate describes organizational environments at a surface level,
organizational culture focuses on the underpinnings of organizational environment in
terms of values, beliefs, and norms (Baer & Frese, 2003). Organizational culture also
refers to a set of meanings that have been less consciously held than most of what has
been called organizational climate (Reichers & Schneider, 1990). Organizational culture
differs from climate in that organizational culture focuses on shared assumptions within
the workplace, while organizational climate emphasizes shared perceptions (Ashforth,
1985). Baer and Frese (2003) argued that organizational climate is a manifestation of
culture, where organizational culture exists at a higher level of abstraction than climate.

Psychological climate, on the other hand, describes an individual’s
psychologically meaningful interpretations of immediate and influential organizational
practices, processes and events (Parker et al., 2003). Psychological safety, an aspect of
psychological climate, is an important factor in employees’ engagement at the workplace
and is therefore critical to explain individuals’ propensity to acquire and employ training.
As noted above, training research traditionally investigated how and why organizational
climate encouraged and rewarded employees to learn and transfer training to the
workplace (Martocchio & Hertenstein, 2003; Salas & Cannon-Bowers, 2001). For
instance, training transfer climate was investigated as employees’ perceptions of
organizational climate that facilitates or hinders the use of skills acquired during training
(Burke & Baldwin, 1999). Although psychological safety has a critical role, the concept
has not been investigated in the context of training. The moderating effect of
psychological safety on the relationship between employees’ regulatory focus and training acquisition is examined in this study. The next section describes the concept of psychological safety more fully.

**Psychological Safety**

**Definition**

Individuals experience psychological safety when they feel able to “show and employ one’s self without fear of negative consequences to self-image, status, or career” (Kahn, 1990, p. 708). Psychological safety is described as a psychological condition existing “across individuals” and “powerful enough to survive the gamut of individual differences” in terms of organizational engagement (Kahn, 1990, p. 695). Employees will be personally engaged in organizations when feeling psychologically safe (Kahn, 1990).

Important to note is that psychological safety is different from organizational climate. While psychological safety concerns employees’ feelings about organizational contexts, dimensions of organizational climate indicate the existence of varying degrees of psychological safety (Brown & Leigh, 1996; Kahn, 1990). Baer and Frese (2003) described a climate for psychological safety as one in which both formal and informal organizational practices and procedures guide and support open and trustful interactions within the work environment. Thus, a climate for psychological safety describes a climate where employees feel safe to speak up without being rejected or punished (Baer
Similarly, Edmondson (1999) suggested that psychological safety is different from organizational climate and that it mediates the effects of organizational climate on employees’ behavior. Psychological safety refers to a psychological experience and condition that causes employees to personally engage or disengage in role-performance (May, Gilson, & Harter, 2004). Personal engagement and personal disengagement refers to “the behaviors by which people bring in or leave out their personal selves during work-role performance” (Kahn, 1990, p. 694-695).

Employees experience three distinctive psychological conditions when engaging with an organization: (1) psychological meaningfulness, (2) psychological availability, and (3) psychological safety. Psychological meaningfulness refers to employees’ evaluations of the returns they may obtain from engaging in the performance of their work roles. Psychological availability refers to employees’ estimating if they posses the necessary resources, whether physical or psychological, to fruitfully engage in work role behaviors (Kahn, 1990). In this study, however, these two are statistically and experimentally controlled. It is assumed that the training provided in this study and its rewards are equally meaningful to all participants. Psychological safety is considered important to explain employee behavior in the training context and is accordingly evaluated in this study.

Psychological safety is influenced by four aspects of organizational climate: (1) interpersonal relationships, (2) group and intergroup dynamics, (3) management style and process, and (4) organizational norms (Kahn, 1990). First, supportive, trustful, and open interpersonal relationships enhance psychological safety and provide flexibility permitting employees to fail without fear of adverse consequences (Brown & Leigh,
Second, employees have little psychological safety when they feel disconnected from others. Group dynamics and membership within various powerful and authoritative groups will determine the extent to which employees engage in positive work-role performance (Edmondson, 1999). Third, with a resilient and clarifying management style, leaders can create a supportive and open work environment that reinforces employees’ positive behaviors (Day, 2000; Lord & Emrich, 2000). Employees’ psychological safety, therefore, increases when they control their work, when they are comfortable with the “tone” of management, and when they perceive consistent messages from the leadership. Finally, employees will feel safe and engage in higher role-performance when behaving within the boundaries of organizational norms than when behaviorally deviating from norms (Baer & Frese, 2003).

**Psychological Safety Influences Training**

Psychological safety is said to influence employees’ behavior in training settings because failure to satisfy interpersonal safety needs will prohibit employees’ free expression of behaviors (Schneider & Alderfer, 1973). Baer and Frese (2003) found that in organizations with high psychological safety, process innovation positively relates to firm performance, while in organizations with low psychological safety, process innovation negatively relates to firm performance. Especially for learning behaviors, Edmondson (1999) found that psychological safety within teams improved learning behaviors of team members. Psychological safety enhances training outcomes because it “alleviates excessive concern about others’ reactions to actions that have the potential for
embarrassment or threat, which learning behaviors often have” (Edmondson, 1999, p. 355). Additionally, psychological safety increases employees’ intentions to engage in behaviors beneficial to organizations (Kahn, 1990). Since most training focuses on educating employees in new knowledge and skills required in the workplace, an increased risk of failure inherently exists (Noe, 2002). Psychological safety, therefore, becomes an important condition for the acquisition and application of training.

However, learning behaviors in Edmondson’s (1999) study were operationalized differently from training provided in an organizational context. The learning goals in Edmondson’s study were established by the team members themselves. While the issue of psychological safety is important in this context, it is more so when learning goals are established by organizational managers, as is the case with training in organizations. It is important, therefore, to examine whether psychological safety has similar effects in the training context at the individual level.

**Psychological Safety as a Mediator of Contextual Variables**

Psychological safety mediates the effects of contextual variables such as leader coaching on employees’ behaviors (Edmondson, 1999). For example, a supportive context such as easy access to resources and information can reduce insecurity and defensiveness among employees and therefore increase psychological safety (Brown & Leigh, 1996). Leaders’ behaviors are also salient to employees (Day, 2000; Lord & Emrich, 2000). A supportive, coaching-oriented and non-defensive leader stands for a safe environment, while an authoritarian or punitive leader generates a risk environment
(Kahn, 1990). Therefore, Edmondson (1999) suggests that psychological safety “serves as a mechanism translating structural features into behavioral outcomes” (p. 357). Following Kanfer’s framework (1989; 1990), psychological safety is considered as a more proximal factor on employees’ behaviors and performance than such distal factors as organizational support, management style, and leadership. In the current study, therefore, psychological safety is treated as a surrogate for the effects of organizational context on training, not only because it has not been considered in training models before, but also because, as discussed above, psychological safety is a mediator of the impact of organizational climate on employees’ behaviors in training.

**Psychological Safety Affects Self-Regulation**

As explained earlier, self-regulation is individuals’ goal-directed behavior and is influenced by a number of individual-level variables and organizational contexts. Psychological safety is considered a perceptual summary of organizational contexts and therefore has an impact on employees’ self-regulation and behaviors in the workplace. When regulating their behaviors, employees will consider their psychological safety in their workplace and, consequently, the strength, fit, and modes of regulatory focus may vary. In situations with high psychological safety, employees are more likely to evidence chronic or situational-induced regulatory foci more strongly. On the other hand, a situation with low psychological safety and high perceived environmental uncertainty might constrain employees’ self-regulation (Duncan, 1972). As a consequence, individuals will engage less intensively in regulating their behaviors by chronic or
situational-induced regulatory foci. That is, low psychological safety becomes a barrier to the authenticity of self-regulatory focus in organizational context (Harter, 1997). Van-Dijk and Kluger (2004) also suggested future research to consider “a possible three-way interaction” between contextual effect, chronic regulatory focus, and situation-induced regulatory focus (p. 129).

Hence, in this study the moderation of psychological safety on the relationship between regulatory focus and training acquisition is predicted (see Figure 2.1 and Figure 2.2). Chronic promotion focus individuals will acquire more approach skills in conditions of a high psychological safety and a situation-induced promotion focus than in a high psychological safety but a situation-induced prevention focus. In contrast, in conditions of low psychological safety chronic promotion focus individuals will acquire fewer approach skills in a situation-induced promotion focus than in a situation-induced prevention focus. Further, chronic promotion focus individuals will acquire more approach skills in conditions of a situation-induced promotion focus and a high psychological safety than in a situation-induced promotion focus but a low psychological safety. In contrast, in conditions of a situation-induced prevention focus chronic promotion focus individuals will acquire fewer approach skills in a high psychological safety than in a low psychological safety.
<table>
<thead>
<tr>
<th>Promotion Focus</th>
<th>High</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situation-Induced</td>
<td>Approach Skills</td>
<td>Approach Skills</td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Regulatory Focus</td>
<td>Approach Skills (Lowest)</td>
<td>Approach Skills (Lowest)</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>

Psychological Safety

*Figure 2.1. Chronic promotion focus participants*

<table>
<thead>
<tr>
<th>Promotion Focus</th>
<th>Low</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situation-Induced</td>
<td>Avoidance Skills (Lowest)</td>
<td>Avoidance Skills (Lowest)</td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Regulatory Focus</td>
<td>Avoidance Skills</td>
<td>Avoidance Skills (Highest)</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>

Psychological Safety

*Figure 2.2. Chronic prevention focus participants*
On the other hand, chronic prevention focus individuals will acquire fewer avoidance skills in conditions of a high psychological safety and a situation-induced promotion focus than in a high psychological safety but a situation-induced prevention focus. Similarly, in conditions of low psychological safety chronic prevention focus individuals will acquire fewer avoidance skills in a situation-induced promotion focus than in a situation-induced prevention focus. Further, chronic prevention focus individuals will acquire more avoidance skills in conditions of a situation-induced promotion focus and a high psychological safety than in a situation-induced promotion focus but a low psychological safety. Similarly, in conditions of a situation-induced prevention focus chronic prevention focus individuals will acquire more avoidance skills in a high psychological safety than in a low psychological safety.

Taken together, the argument presented above suggests:

*Hypothesis 2.* Psychological safety in the workplace will moderate the relationship between individuals’ regulatory foci and training acquisition such that individuals with high psychological safety will be more likely to behave consistent with their own regulatory foci than individuals with low psychological safety.
Researchers have noted that employees’ acquired learning results in individually different behaviors in the workplace (Kirkpatrick, 1959b, 1960a). Transfer of training results in employees’ application of new knowledge and skills from training to workplace (Tracey & Tews, 2005). As noted earlier, the current study focuses on the effects of pre-training motivation on training effectiveness.

In this study, acquisition of training is operationalized as the demonstration of learned skills in an experimental situation. As stated earlier, individuals in the current study acquire two kinds of skills: approach skills and avoidance skills. The number of acquired approach skills and the number of acquired avoidance skills consist of the pattern of acquired learning. Further, behaviors are operationalized in the current study based on participants’ hire/reject recommendations of job applicants. Accordingly, the current study predicts that individuals who acquire more approach skills will provide more positive recommendations of job applicants than those who acquired more avoidance skills. Hence, the argument stated above suggests:

_Hypothesis 3._ Different patterns of training acquisition will result in different behavioral patterns of employees in the given context of the training program such that employees with more approach skills will provide more positive recommendations of job applicants than employees with more avoidance skills.

In sum, the hypotheses argue that regulatory focus influences training acquisition depending on psychological safety and that the pattern of acquired learning affects
trainees’ behaviors. Figure 2.3 below graphically describes the relationships between the constructs. The methods that are conducted to examine the relationships and to test the hypotheses are explained in Chapter 3.

*Figure 2.3. The general conceptual model*
Chapter 3

Methods

Self-regulation is an important motivation process of employees in training. But as noted in the first two chapters, the self-regulatory focus of trainees has not been researched. Further, the interactions between chronic and situational regulatory focus and between self-regulatory focus and psychological safety have not been examined in the literature. Thus, the purpose of the current study is to examine the effects of self-regulatory focus on training effectiveness, as moderated by psychological safety. The following section will discuss the conceptual framework in detail and look at the linkages between the framework and the design of the study.

Specifying the Conceptual Framework

Regulatory focus theory, as noted before, states that individuals have two regulatory foci: promotion focus vs. prevention focus, which are either chronic or situation-induced. The current study expects that employees with different types of regulatory focus in self-regulation will have different training outcomes at different levels of psychological safety. Specifically, in addition to the previous studies, the present research suggests two interactions: the interactions (1) between chronic regulatory focus and situation-induced regulatory focus, and (2) between regulatory focus and psychological safety. Thus, the study suggests that individuals with certain chronic
regulatory focus will exhibit differences in training acquisition depending on two moderators: situational-induced regulatory focus and psychological safety. The conceptual model and the hypotheses of the current study are illustrated in Figure 3.1 below.
Figure 3.1 models the study variables and the hypothesized relationships. First, chronic regulatory focus reflects individuals’ differences in self-regulation processes: employees with a chronic promotion focus are expected to have a different pattern of training acquisition than employees with a chronic prevention focus (Hypotheses 1a & b). Second, situation-induced regulatory focus is expected to moderate the effects of chronic regulatory focus on training acquisition (H1c). Third, psychological safety is expected to moderate the effects of regulatory focus on training acquisition. In different levels (high or low) of psychological safety, employees are expected to acquire training in different ways (H2). Finally, different patterns of training acquisition are expected to result in various patterns of employee behavior in the corresponding job tasks: employees who
obtain more approach skills are more likely to accept job applicants than employees who obtain more avoidance skills (H3). A laboratory experiment was designed to test the hypotheses.

Data Collection

Demonstration of Causal Relationships

The purpose of the current experiment was to test the causal relationships in the hypotheses. A causal relationship holds if “(1) the cause preceded the effect, (2) the cause was related to the effect, and (3) we can find no plausible alternative explanation for the effect other than the cause” (Shadish, Cook, & Campbell, 2002, p. 6). The current experiment was designed to satisfy the three conditions. First, the experiment followed the order of the cause and effect. Chronic regulatory foci were measured at the beginning of the experiment. Participants’ regulatory foci and psychological safety were subsequently manipulated using written scenarios. Training acquisition was measured subsequently. Finally, behavior was evaluated. This order of events simulated workplace training in that trainees first learned how to perform a task in a training program and were then expected to transfer their acquired learning into their daily work. Taken together, adequate precaution was taken to ensure the experimental structure was appropriate for a test of causation.
Second, through appropriate manipulations of the independent variables, correlation between independent variables and dependent variables was examined. A laboratory experiment is “ideally suited” to test proposed theory and is able to manipulate independent variables “individually” and collect participants’ corresponding reactions to dependent variables (Bateson & Hui, 1992, p. 271).

In the laboratory experiment (more fully explained below), written scenarios were used to induce situational regulatory foci and psychological safety. Realism is very important for success of written scenarios and therefore, the laboratory experiment collected participants’ view about the extent of realism of the applied scenarios. Similarly, the laboratory experiment used a videotape to control potential confounding effects of both training process and replicated data collection (Bateson & Hui, 1992). The training videotape’s realism (representation of lecture’s social and situational features) was ensured by soliciting an expert’s review of the script and hiring an experienced actor to play the role of trainer and the services of an experienced director to videotape the simulation. Research has shown that written scenarios and videotapes are able to capture a high degree of realism and have high validity in various context including services (Bateson & Hui, 1992). Therefore, using videotapes in experimentation is appropriate.

Finally, experimental design was selected to control for confounding effects. Experimentation, through random assignment of participants, ensures high levels of potential control of confounding variables (Kerlinger, 1973).

In sum, the study followed the suggestions of Shadish et al. (2002) to ensure an appropriate test of causality.
**Laboratory Experiment**

A between-subjects laboratory experiment was conducted to test the hypotheses. Although a within-subject design can “increase statistical power by controlling individual differences between units within conditions” and “use fewer units to test the same number of treatments,” the within-subject design can “cause fatigue effects, practice effects, carryover effects, and order effects” (Shadish et al., 2002, p. 109). By contrast, a between-subject design generates different experimental situations and examines the differences among participants within an experimental group (Shadish et al., 2002). The current study particularly wants to investigate how employees with different chronic regulatory foci behave differently in each combination of situation-induced regulatory foci and psychological safety. Consequently, the between-subject design is appropriate for the purpose of the current study.

The experiment was conducted as follows (see Figure 3.2). Two hundred and seven (207) participants first responded to measures of chronic regulatory focus. Next, they were asked to read written scenarios that manipulated regulatory focus and psychological safety (see Appendix A for scenarios). Subsequently, participants were imparted job applicant selection skills via a video (see Appendix B for the script). Finally, participants evaluated descriptions of fictitious job applicants (see Appendix C) and provided hire/reject recommendations of the job applicants to the supervisor.

The steps of the laboratory experiment described above are illustrated as a timeline in Figure 3.2 below:
The following section describes the experimental procedures adopted. First, participant demographics are provided. Next, the measures used in the study are described. A description of the process of content validation of various measures used in this study, the methods adopted in videotaping the training session, the assembly of the description of job applicants used in the final stage of the experiment and the development of the manipulations used are provided. Finally, data collection procedure and data analysis methods are described.
Participants

Participants in the experiment were recruited from among students of a hospitality program at a leading northeastern university in the United States. College students are commonly used in laboratory experiments and have been shown to be suitable for research (Mook, 1983; Sears, 1986). Specifically in the current study, college students were recruited as participants for the following two reasons. First, the study was a laboratory experiment in which the potential influences of alternative factors (such as individual differences) can be controlled by randomization and manipulation of scenarios. Thus, the study could obtain a higher internal validity (the primary concern of empirical research that tests causation) than a field experiment (Kerlinger, 1986; Shadish, Cook, & Campell, 2002). Second, most of the students selected had, to some degree, work experience in the hospitality industry (research participants in the current study have on average 4 years work experience) such as having served an internship (Walker, 2004), which was important to this experiment. Nonetheless, the student sample might have potential limitations in the external validity of the study and is discussed later.

The recruited students were told that their participation will be rewarded. They can earn three extra credits (or an equal percentage of a course’ total score) for their research participation.

A total of 207 college students provided responses for the study. Size of sample for the experiment was estimated using Cohen’s (1988) recommendations. Cohen (1988) suggested a sample of 81 to achieve a medium effect size (f) of 0.25 with Type I error of 0.01, Type II error of 0.2 and the degrees of freedom of the numerator of 6 (p. 382).
Researchers have commonly suggested 0.01 for Type I error and 0.2 for Type II error in laboratory experiments (Kuehl, 2000). The statistical method used in testing the hypotheses in the current study was an Analysis of Variance method (ANOVA). The largest degree of freedom of the numerator of the ANOVA in the current study was 6. Thus, 207 participants were sufficient for the statistical testing of the hypotheses.

Sixty-one percent of the sample was female. The sample had an average age of 21 years, consisted of mostly sophomore and junior students, were in the majority Caucasian (82.8%), and had an average work experience of about 4 years (see Table 3.1).
Table 3.1

Description of the Sample

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>38.6%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>61.4%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>Mean=20.68, Std. Deviation=2.55</td>
<td></td>
</tr>
<tr>
<td>Student status</td>
<td>Freshman</td>
<td>14.3%</td>
</tr>
<tr>
<td></td>
<td>Sophomore</td>
<td>27.6%</td>
</tr>
<tr>
<td></td>
<td>Junior</td>
<td>48.3%</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
<td>9.9%</td>
</tr>
<tr>
<td>Ethnic background</td>
<td>Caucasian</td>
<td>82.8%</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>3.4%</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>8.4%</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>2.5%</td>
</tr>
<tr>
<td></td>
<td>Pacific Islander</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>2.0%</td>
</tr>
<tr>
<td>Work experience (years)</td>
<td>Mean=4.03, Std. Deviation=3.12</td>
<td></td>
</tr>
</tbody>
</table>

Measures

This section describes the measures used in this study, while the next section discusses the development and the content validation of the scenarios. Published
research was employed to develop measures for regulatory foci (Higgins et al., 2001) and psychological safety (May et al., 2004). Written scenarios were developed to induce psychological safety and situational regulatory foci. A video was designed to impart training in selection skills. Finally, published research was examined to list the skills required for training content (e.g., Hosoda, Stone, & Stone-Romero, 2003).

**Chronic Regulatory Focus**

The Regulatory Focus Questionnaire (RFQ; Higgins et al., 2001) was used to measure participants’ chronic regulatory focus (see Table 3.2). In the RFQ, chronic regulatory focus was operationalized as individuals’ inherent regulatory foci, with item content specifically focused on participants’ subjective history of success in conducting persons’ regulatory foci (promotion focus vs. prevention focus) in self-regulation (Higgins et al., 2001). This operationalization was tested to be valid in several empirical studies (e.g., Cesario et al., 2004). Specifically in the current study, after the data had been obtained, an exploratory factor analysis (EFA), which is explained in detail later, tested the content validity of the scale by evaluating the factor pattern and factor loadings; items with negative factor loadings on the factor that the items belong to were reverse coded (Higgins et al., 2001). The scores of promotion-focus and prevention-focus were calculated respectively from the corresponding items, and then, the chronic regulatory focus scores for each individual (the difference between the scores of a promotion focus and the scores of a prevention focus) was calculated (Cesario et al., 2004). Following Cesario et al.’s (2004) methods, the current study categorized
employees’ chronic regulatory focus using a median split. The median split is “a common decision rule” to assign participants to two experimental groups by dividing the participants at the median (Crano & Brewer, 2002, p. 127; e.g., Kanfer & Ackerman, 1989). The participants above the median of the chronic regulatory focus score were termed the chronic promotion focus group, and the participants below the median were termed the chronic prevention focus group.
Table 3.2

*Items of the Chronic Regulatory Focus*

<table>
<thead>
<tr>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compared to most people, are you typically unable to get what you want out of life?</td>
</tr>
<tr>
<td>2. Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?</td>
</tr>
<tr>
<td>3. How often have you accomplished things that got you “psyched” to work even harder?</td>
</tr>
<tr>
<td>4. Did you get on your parents’ nerves often when you were growing up?</td>
</tr>
<tr>
<td>5. How often did you obey rules and regulations that were established by your parents?</td>
</tr>
<tr>
<td>6. Growing up, did you ever act in ways that your parents thought were objectionable?</td>
</tr>
<tr>
<td>7. Do you often do well at different things that you try?</td>
</tr>
<tr>
<td>8. Not being careful enough has gotten me into trouble at times.</td>
</tr>
<tr>
<td>9. When it comes to achieving things that are important to me, I find that I don’t perform as well as I ideally would like to do.</td>
</tr>
<tr>
<td>10. I feel like I have made progress toward being successful in my life.</td>
</tr>
<tr>
<td>11. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.</td>
</tr>
</tbody>
</table>
Items

12. Compared to most people, are you typically unable to get what you want out of life?

13. Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?

14. How often have you accomplished things that got you “psyched” to work even harder?

15. Did you get on your parents’ nerves often when you were growing up?

16. How often did you obey rules and regulations that were established by your parents?

17. Growing up, did you ever act in ways that your parents thought were objectionable?

18. Do you often do well at different things that you try?

19. Not being careful enough has gotten me into trouble at times.

20. When it comes to achieving things that are important to me, I find that I don’t perform as well as I ideally would like to do.

21. I feel like I have made progress toward being successful in my life.

22. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.

Other studies have measured individuals’ differences in chronic regulatory foci by using the self-guide strength measure (Shah & Higgins, 2001; Shah et al., 1998). The scale employs a computer questionnaire to measure individuals’ reaction time to ideal
and ought self attributes. The self-guide strength measure focuses on individuals’ differences and is more suited to low realism contexts (Van-Dijk & Kluger, 2004). In the current study, however, employees’ behavior in workplace on the basis of individuals’ differences in chronic regulatory focus was investigated. Hence, RFQ is better suited for the purpose of the current study than the self-guide strength measure.

Lockwood, Jordan, and Kunda (2002) used a 18-item scale to measure chronic regulatory focus. However, one aim of the current study was to develop the regulatory focus theory and to test the theoretical propositions in the training context. Consequently, it was considered more appropriate to keep the measures of the current study consistent with the scale Higgins and his colleagues used to develop the regulatory focus theory.

**Situation-Induced Regulatory Focus**

Following previous research, participants were induced to experience situation-induced promotion or prevention foci through the use of written scenarios (Liberman et al., 2001; Shah & Higgins, 2001). For example, promotion focus was induced using the statement: “As long as your response contains the right decision, you will be rewarded.” In contrast, prevention focus was induced by: “As long as your responses do not contain only wrong answers, you will not lose your reward.”

The manipulation check of situation-induced regulatory focus was adapted from previous research (Louro et al., 2005; Roese, Hur, & Pennington, 1999). The adaptation considered the fact that the regulatory focus scenario and its manipulation check was the...
first trial about employees’ behavior in training under different levels of psychological safety. Consequently, the manipulation check was revised to be specific to the scenario, for example: “Some workplace tasks involve pursuing positive job outcomes, whereas others involve trying to avoid negative job outcomes. How would you describe the task portrayed in the above scenario?” Consistent with Roese et al.’s study, the 9-point scale was applied. The left anchor was labeled “avoiding”, and the right anchor was labeled “pursuing”.

Psychological Safety

Similar to Kahn (1990) and May et al. (2004), psychological safety was manipulated by using written scenarios. Both Kahn’s (1990) recommendations and May et al.’s (2004) measures were the basis of the scenarios of high and low psychological safety used to induce psychological safety among the study participants. May et al.’s measures were also adapted for the manipulation check of psychological safety. The three items in Table 3.3 directly evaluated employees’ overall feeling of psychological safety in the given scenarios. The items were measured using a 7 point scale (1 = “Strongly Disagree”, and 7 = “Strongly Agree”).
Training acquisition in the current study, as noted, focused on the patterns of skills the participants recalled after their training session. In previous studies, paper-and-pencil and performance tests were used to measure trainees’ learning outcomes (acquisition) (Arthur et al., 2003). But the traditional tests can tell us only about trainees’ scores on the tests, not about the structure of acquired skills (i.e., approach or avoidance skills). It was possible that employees with different skills could have similar scores on the tests. The focus of interest of the present study is in understanding how the effects of regulatory foci and psychological safety lead to different patterns of acquired skills during training.

Training acquisition was measured as the number of approach skills and number of avoidance skills participants acquired or retained after they had been exposed to the training video.

<table>
<thead>
<tr>
<th>Manipulation Check Items of Psychological Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In the hotel, I feel safe being myself at work.</td>
</tr>
<tr>
<td>2. In the hotel, I am afraid to express my opinions at work.</td>
</tr>
<tr>
<td>3. The hotel has a threatening work environment.</td>
</tr>
</tbody>
</table>

*Training Acquisition*
After the training session, participants were asked to write down three to five skills they could remember. Assigning participants to the different treatments of the experiment as well as individual differences were expected to result in participants in different scenarios acquiring differing number of approach/avoidance skills. Training acquisition was measured by two items: the number of acquired approach skills, and the number of acquired avoidance skills.

After the responses of the acquired skills (training acquisition) had been obtained, two raters were asked to code the responses in terms of the number of recalled approach skills and the number of recalled avoidance skills. The raters were two female Ph.D. candidates in hospitality management and leisure studies, respectively. After they individually coded the responses, inter-rater reliability was examined for the aggregation of the coded data.

Inter-rater reliability was demonstrated in previous research by two indicators: ICC (1) and $r_{wg}$. First, an intra-class correlation coefficient (ICC) reflects the degree of within-group agreement, which means “the degree to which raters provide essentially the same rating” (Bliese, 2000, p. 351). Specifically, ICC (1) is “an index of inter-rater reliability (the extent to which raters are substitutable)”, while ICC (2) is “an estimate of the reliability of the group means” (Bliese, 2000, p. 355-356). In the current study, ICC (1) was applicable to measure the inter-rater reliability of coding training acquisition. The one-way random-effects ANOVA model was conducted and ICC (1) was calculated separately for the approach skills and avoidance skills of each participant according to the established formula (Bliese, 2000). The ICC (1) of the approach skills was equal to -0.00478 (MSB=0.01, MSW=0.63, and K=207); the ICC (1) of the avoidance skills was
equal to -0.00348 (MSB=0.155, MSW=0.551, and K=207). The results showed that the coding within groups of each rater had low agreement but the coding across raters had high reliability. Second, within-group inter-rater reliability ($r_{wg}$) was examined according to James, Demaree, and Wolf (1984). Approach skills’ $r_{wg}$ was 0.987 ($\sigma^2_{EU} = 47.92$ and $S^2_{APP}=0.63$) and Avoidance skills’ $r_{wg}$ was 0.992 ($\sigma^2_{EU} = 65.25$ and $S^2_{APP}=0.55$). The within-group inter-rater reliability was high both for approach skills and avoidance skills. Overall, it indicated that the inter-rater reliability was high. Initial evaluations by the raters surfaced disagreements. Most disagreements referred to interpretations of participant handwriting. After group discussion among the raters and the researcher, all disagreements were resolved.

Behaviors

‘Behaviors’ in the current study refer to employees’ application of learned skills at their work. In this study, participants were asked to watch a video that imparted human resource selection skills. Participants were asked to read the descriptions of the hotel and the position (more fully described in the next section). They were then required, based on the descriptions provided them and using skills acquired, to review biographical and employment related details of five job applicants. The participants were required to make hire or reject recommendations to their human resource manager.

Thus, participants’ behavior was measured by two items: “(1) I will recommend that my supervisor hire___”; and “(2) I will recommend that my supervisor reject___.”
The items were measured on a 7-point scale: 1 = “Strongly Disagree”, and 7 = “Strongly Agree”. The second question was reverse coded after the data were collected. The average of the two questions indicated Behaviors.

Tests of Content Validation

Content validity indicates the psychometric quality of measures and therefore, content validation improves the measures’ extent to reflect a particular theoretical content domain and establishes evidence for construct validity (Hinkin and Tracey, 1999). Construct validity is “the degree to which inferences” are warranted from the scales, settings, and other operations of an empirical study to the concepts and theories “that these instances might represent” (Shadish et al., 2002, p. 38). Ensuring high construct validity is necessary for making generalized causal inferences (Shadish et al., 2002). Accordingly, testing for content validity of scales and operations is necessary to “assess the correspondence” between the individual items and the concepts (Hair, Anderson, Tatham, & Black, 1998, p. 117). A number of instruments were developed specifically for this study: training skills, a training video, job applicants’ descriptions, and manipulations for psychological safety and regulatory foci. These instruments were developed, drawing on existing theory, studies and other resources. All instruments were evaluated using tools recommended by methodologists including Hair et al. (1998) and Hinkin and Tracey (1999). Based on recommendations in the literature, appropriate corrections were made to the instruments to achieve statistical validity. The next sections
describe in more detail the testing methods adopted and the results for each measure used in this study.

Training Skills

Participants were provided training in the skills required to select job applicants via a videotaped presentation. For purposes of this study, training skills included two categories: approach skills or skills about what an assistant human resources manager should do when selecting job applicants, and avoidance skills or skills about what an assistant human resources manager should not do in order to avoid selection mistakes. Individuals were prescreened to establish if they had already taken a human resource management course. Only those who had not taken a human resource management course were included in the study. Since the participants had not taken a course in human resource management and had no exposure to training skills, the current study assumed that they did not know the skills that were being demonstrated in the training session. Additionally, the skills were designed specifically for the current study and did not appear in a written form that would have been accessible to the participants. A pretest about the participants’ prior knowledge on the particular content was not necessary.

Ten job selection skills were originally generated from the following texts: (1) *Evaluation of Employment of Applications* by Fyock (2004, p. 105-108); (2) *Mistakes of Selection, Hidden Traits of Individuals’ Success and the Golden Rule for Selection* by McQuaig (1981, p. 5-19); (3) *Power Hiring Hot Tips about the Final Candidate Assessment* by Adler (2002, p. 205-206); and (4) *Ten Most Common Mistakes in*
Selection by Grensing (1986, p. 88-96). The ten identified skills were also supported by previous research (Gibbs & Riggs, 1994; Hosoda et al., 2003; Hough & Oswald, 2000; Klehe, 2004; Schmidt & Hunter, 1998; Schmitt, Cortina, Ingerick, & Wiechmann, 2003). The wording of the skills was adapted for the purpose of the study. Approach skills were framed as “look for__”, while avoidance skills were framed as “don’t__” or “avoid__” (see Table 3.4).
Table 3.4
Ten Skills for Selecting Job Applicants

<table>
<thead>
<tr>
<th>1. Avoid lack of knowledge of the position to be filled</th>
<th>Designed as an Avoidance Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. Review all information about the position and the</strong></td>
<td><strong>Designed as an Approach Skill</strong></td>
</tr>
<tr>
<td><strong>candidate.</strong></td>
<td><strong>Designed as an Avoidance Skill</strong></td>
</tr>
<tr>
<td>3. Avoid inadequate screening of applicants’ information</td>
<td><strong>Designed as an Approach Skill</strong></td>
</tr>
<tr>
<td>4. Look for general traits of success</td>
<td><strong>Designed as an Approach Skill</strong></td>
</tr>
<tr>
<td>5. Look for potential, talent, and thinking ability</td>
<td><strong>Designed as an Approach Skill</strong></td>
</tr>
<tr>
<td>6. Don’t stereotype the candidate</td>
<td><strong>Designed as an Avoidance Skill</strong></td>
</tr>
<tr>
<td><strong>7. Don’t be guided by your first impression</strong></td>
<td><strong>Designed as an Avoidance Skill</strong></td>
</tr>
<tr>
<td><strong>8. Don’t evaluate a candidate solely in relation to</strong></td>
<td><strong>Designed as an Avoidance Skill</strong></td>
</tr>
<tr>
<td>other candidates</td>
<td></td>
</tr>
<tr>
<td><strong>9. Look for a pattern of team work, team building</strong></td>
<td><strong>Designed as an Approach Skill</strong></td>
</tr>
<tr>
<td>skills, and experience.</td>
<td></td>
</tr>
<tr>
<td>10. Look for an upward pattern of personal growth and</td>
<td><strong>Designed as an Approach Skill</strong></td>
</tr>
<tr>
<td>development.</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Bolded items were deleted from the study.
A one-way ANOVA approach recommended by Hinkin and Tracey (1999) was applied to validate the content of the ten selection skills. The test evaluated if participants were able to distinguish between the two categories (approach skills and avoidance skills). As required by the test, approach skills and avoidance skills were defined separately as below:

“Research has shown that job selection behavior/practices can be classified as approach and avoidance skills. Approach Skills describe those behaviors/practices that are considered as best to adopt by selectors when selecting job applicants. On the other hand, Avoidance Skills describe those behaviors/practices that are best to avoid when selecting job applicants.”

Definitions were provided at the top of a page with a list of all skills below. Two random orders of ten skills were generated and arranged on two separate pages. 60 student volunteers who were not the final sample participants were then asked to rate to what extent each skill corresponded with the definitions of approach skills (or avoidance skills) on a 7-point scale from 1 = “not at all” to 7 = “completely”. A one-way ANOVA was then conducted to identify skills that corresponded significantly with the skill categories for which they were designed. Skills 2 (F1, 117=1.055, p=.307), 7 (F1, 116=2.525, p=.115), 8 (F1, 117=0.465, p=.497) and 9 (F=1, 117=1.513, p=.221) in Table 3.4 were found not to correspond significantly with the designed category at α=0.10 level. As a result, those 4 skills were deleted and the remaining six skills were retained for the training video.
Video Development

Videotapes were commonly used in previous research (Ambadi, Bernieri, & Richeson, 2000). As noted above, the validity of videotapes has been demonstrated in empirical studies including in services (Bateson & Hui, 1992) and training research (DeMatteo et al., 1994).

A videotape was developed for the training session using the six selection skills. Following the recommendations of a professional guide to script writing, a script (see the Appendix) of the video was first generated (Trottier, 1998). The script described the details of the videotaping including the place, time, trainer, and training content. The six skills comprised the content of the training. Several sentences or talk points were developed explaining each skill. The six skills were presented in four random orders, which resulted in four versions of the video clips. Therefore, the four video versions were the same except that the presentation skills were shown in different orders. Participants were randomly assigned to different versions of video clips. Consequently, potential order and contrast effects that can occur when only one order of skills is available were reduced (Montgomery, 2004; Oppenheim, 1992).

Realism is a big concern for video clips in experimental designs (Aronson, Ellsworth, Carlsmith, & Gonzales, 1990). To achieve realism, the script was proofread by an assistant professor in instructional design so that the design of the lecture could be assured to be proper for an instructional purpose (lecture). Second, a female Ph.D. candidate, ABD, in I/O psychology, who did not have exposure to the research purposes and other details of the current study, was recruited to be the trainer. The person had
sufficient expertise in the relevant field of organizational behavior and human resources management, had several years’ experience in hospitality organizations, and had video actor experience in other research projects. Third, the videotaping was directed by a Ph.D. candidate, ABD, in instructional design, who has a lot of experience in making video clips for lectures. Finally, the classroom setting used to videotape the session provided participants with a realistic training environment. Moreover, participants were in a classroom setting when they were shown the video ensuring a high level of compatibility between the experimental ‘laboratory’ and the videoclip.

Research participants were informed that they were requested to respond to short surveys before and after a 4½-minute video about skills to select job applicants. They were also told that after watching the video, they would be required to write down the skills described in the video. Following previous research, participants were told that if they correctly wrote down skills, they would get a chocolate bar (Isen & Baron, 1991; Isen, Daubman, & Nowicki, 1987). Participants were provided a written scenario before they watched the video. The scenario required them to imagine that they were an assistant human resources manager and that the current training session was to prepare them for their job responsibilities of selecting job applicants.

Descriptions of Job Applicants

After receiving ‘training’, participants were asked to evaluate five job applicants and make hire/reject recommendations to their HR manager. The evaluation material
included descriptions of the hotel for which the selection was being made, the job position, and descriptions of the job applicants.

The hotel and position descriptions were developed to provide participants relevant context. The hotel description matched that of a middle-level hotel. The hotel description, set out below, was developed based on three hotel ratings including the AAA diamond-rating guidelines, the price segment, and the hotel rating guide (Walker, 2004, p. 113-117).

Your hotel is a medium-sized hotel targeting at the midprice ($60-100) segment. Your hotel offers upgraded service levels. With a reputation for offering consistent quality amenities, your hotel provides spacious accommodations including well-appointed rooms and decorated lobbies.

The position used was that of front office manager. The front office manager job description below was developed by the U. S. Department of Labor (2006b) and used to the current study:

Front office managers coordinate reservations and room assignments, as well as train and direct the hotel’s front desk staff. They ensure that guests are treated courteously, complaints and problems are resolved, and requests for special services are carried out. Front office managers may adjust charges posted on a customer’s bill.

Based on the hotel and position descriptions, the participants were asked to evaluate five job applicants for the front office manager position in this hotel. The descriptions of five job applicants were generated mainly based on the items from the
qualifications developed by the U.S. Department of Labor. Also as suggested by Hough and Oswald (2000), the personality of the job applicant was to be considered during the selection process. Consequently, one item of the measurement facets of each Big 5 personality dimension was selected (NEO-PI; Costa & McCrae, 1992). These two sources resulted in thirty five items (see Table 3.5). An exploratory factor analysis (EFA) procedure was used to identify those dimensions/items that were considered more important for applicants to the job. One hundred and seventy seven participants were not the final sample participants but recruited for this test. Participants were first asked to read the hotel and position descriptions, and then to rate the importance of the items in Table 3.5 to a successful front office manager on a 7-point Likert scale (anchored by 1 = “Not Important At All”, and 7 = “Very Important”). Two random-ordered questionnaires were given to the participants. Care was taken to exclude these students from the final experimental procedures.
Table 3.5

*Items for Job Applicants’ Description*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Know how to provide customer service</td>
</tr>
<tr>
<td>2</td>
<td>Know the structure and the content of the English language</td>
</tr>
<tr>
<td>3</td>
<td>Be trustworthy</td>
</tr>
<tr>
<td>4</td>
<td>Be able to recognize there is a problem</td>
</tr>
<tr>
<td>5</td>
<td>Managing one’s own time and the time of others</td>
</tr>
<tr>
<td>6</td>
<td>Be able to communicate information and ideas in speaking</td>
</tr>
<tr>
<td>7</td>
<td>Be honest</td>
</tr>
<tr>
<td>8</td>
<td>Be able to speak clearly</td>
</tr>
<tr>
<td>9</td>
<td>Know the principles and procedures of human resources management</td>
</tr>
<tr>
<td>10</td>
<td>Be able to arrange things or actions in a certain order or pattern</td>
</tr>
<tr>
<td>11</td>
<td>Know the principles and methods of training design</td>
</tr>
<tr>
<td>12</td>
<td>Know principles and methods of sales and marketing</td>
</tr>
<tr>
<td>13</td>
<td>Display positive emotions</td>
</tr>
<tr>
<td>14</td>
<td>Teaching others how to do something</td>
</tr>
<tr>
<td>15</td>
<td>Know accounting principles and practices</td>
</tr>
<tr>
<td>16</td>
<td>Be able to apply general rules to specific problems</td>
</tr>
<tr>
<td>17</td>
<td>Know management principles</td>
</tr>
<tr>
<td>18</td>
<td>Be self-disciplined</td>
</tr>
<tr>
<td>19</td>
<td>Monitoring/assessing performance to make improvement</td>
</tr>
</tbody>
</table>
20. Be able to identify and understand the speech of another person
21. Being aware of others’ reactions
22. Open to new ideas
23. Actively looking for ways to help people
24. Be able to communicate information and ideas in writing
25. Active listening
26. Using logic and reasoning to identify the strengths and weakness of solutions to problems
27. Be able to listen to and understand information and ideas
28. Knowledge of human behavior and performance
29. Not be anxious
30. Be able to understanding work related documents
31. Employing new information for both current and future problem-solving and decision
32. Knowledge of mathematics
33. Be able to combine pieces of information to form general rules or conclusions
34. Talking to others to convey information effectively
35. Know administrative and clerical procedures and systems

After the data had been collected, EFA was conducted to select the relevant important items. A series of factor analyses were conducted to analyze and arrive at a coherent factor structure. As a result of this elimination process, five items (item 1, 12, 13, 15, and 25) remained. The last factor analysis had a KMO (Kaiser-Meyer-Olkin) value equal to 0.628 (a cutoff of 0.5 is recommended by Hair et al. (2006)) and a
Bartlett’s Test Chi-square value equal to 148.741 (p<0.001) and explained 67.13% of the variance. The factor with five items best suited the data.

The five items from the EFA were used to develop job applicant descriptions. The descriptions were orthogonal in the five dimensions as shown in Table 3.6. It is possible that any variation in results may be attributable to two components: (1) variation among job applicants characteristics and (2) variation caused by the independent variables. One of the objectives of the current study was to control the first variation and demonstrate the second variation. Therefore, the descriptions of the five job applicants were equally orthogonal across all five dimensions. That is, individuals’ qualifications and personality were at a similar level, which controlled for variation among job applicants. Each applicant had an equal number of dimensions rated as excellent, acceptable, or poor (see Table 3.6).
Two random-ordered job applicants’ tables were used in the final experimental survey instrument.

**Scenarios**

As noted (see Figure 3.2), participants’ chronic regulatory focus was measured using the RFQ (Higgins et al., 2001). Next, their situation-induced regulatory foci and psychological safety were manipulated using four scenarios: 2 (promotion vs. prevention focus) × 2 (psychological safety: high vs. low).
Scenarios of Situation-Induced Regulatory Focus

The scenarios of situation-induced regulatory foci were adapted from previous studies (Liberman et al., 2001; Shah & Higgins, 2001). Following previous research, promotion focus was induced using gain-framed messages (attaining a positive outcome or not) while prevention focus was induced using loss-framed messages (attaining a negative outcome or not) (Rothman & Salovey, 1997).

In this study, situational promotion focus (gain and no-gain situations) was induced using the following scenario:

Your task, specifically, is to provide your supervisor with evaluations and hiring recommendations of job applicants. Your compensation includes your hourly wage as well as bonuses. If you provide accurate evaluations and hiring recommendations, you will earn a bonus from the HR department. Otherwise, you will not earn a bonus.

The situational prevention focus (loss and no-loss situations) was induced using the following scenario:

Your task, specifically, is to provide your supervisor with evaluations and hiring recommendations of job applicants. Your compensation includes your hourly wage as well as bonuses. If you do not make mistakes in evaluations and hiring recommendations of job applicants, you will not lose your bonus. If you make mistakes, you will lose your bonus.
**Scenarios of Psychological Safety**

Researchers noted that “psychological safety was experienced as feeling able to show and employ one’s self without fear of negative consequences to self-image, status, or career. Individuals felt safe in situations in which they trusted” (Kahn, 1990, p. 708). Published scales provide dimensions of psychological safety (May et al., 2004). Accordingly, in the current study the definition of psychological safety and its dimensions were used to develop scenarios of high and low psychological safety.

The high psychological safety (feel safe to work in individuals’ own style without negative consequences) condition was described in written scenarios as follow:

You are an assistant human resources manager in a hotel where you feel able to show and employ your true self. When you express your personal ideas and demonstrate your abilities, no negative consequences (for example, your job is not in jeopardy) result. You do not feel that your status and career in the hotel is threatened.

The low psychological safety (feel threatened to work in individuals’ own style which results in negative consequences) condition was described in written scenarios as follow:

You are an assistant human resources manager in a hotel where you do not feel able to show and employ your true self. When you express your personal ideas and demonstrate your abilities, negative consequences (for example, your job is in jeopardy) result. You feel that your status and career in the hotel is threatened.
Scenarios of the 2 (situational promotion vs. prevention focus) × 2 (high vs. low psychological safety) factorial designs were generated by combining the corresponding inductions of situational regulatory focus and psychological safety. Following the logic that the participants probably understand a hotel’s overall climate first and then those conditions specific to a given task, psychological safety inductions were conducted ahead of the inductions of situational regulatory focus. Accordingly, the manipulation checks were also provided to the participants following the order of the inductions.

Finally, the realism of the scenario was important for success of written scenarios (Bateson & Hui, 1992), and examined in the current study by the question: “Overall, is the above scenario realistic?” A 7-point Likert scale was used (the left anchor was labeled “Not At All”, and the right anchor was labeled “Very Much”) (Mattila, 2001; Mattila & Patterson, 2004; Williams & Drolet, 2005).

**Pilot Tests of the Scenarios**

Two pilot studies were conducted to examine the manipulations and the experimental design by comparing the means of the study variables across the experimental groups. The first pilot study using fifty nine college students was conducted to test the first version of the manipulations. The results showed that the participants in a situation-induced chronic promotion focus learned more approach skills (M=1.34) and avoidance skills (M=1.41) than the participants in a situation-induced chronic prevention focus did (approach skills: M=1.22; and avoidance skills: M=1.30). Also, the participants experiencing high psychological safety learned more approach
skills (M=1.30) and avoidance skills (M=1.37) than the participants in low psychological safety did (approach skills: M=1.28; and avoidance skills: M=1.34). The tests supported hypotheses concerning approach skills but not avoidance skills. The mean level of skill acquisition between the experimental groups was not different.

After reviewing the results of the first pilot study, the researcher found that the manipulation check measures were not so closely related to the scenarios. Thus, the researcher revised the manipulation check measures to be more specific to the scenarios. First, the order of manipulation checks was changed from psychological safety measures after the situation-induced regulatory focus items to the reverse order according to the content logic of the scenarios. Second, the words in the scenarios and the measure items were more consistent. Third, the behavior measure was revised from the single item (reject=-3 to hire=3) to two separate questions to ask the participants’ intentions to hire or reject a job applicant.

A second pilot study using thirty six college students was conducted to test revised versions of the manipulations. The results showed that the participants in both situation-induced promotion and prevention acquired similar approach skills (M=1.12 and 1.16 respectively). Participants in the promotion focused situation acquired fewer avoidance skills (M=1.47), compared to the participants in a situation-induced chronic prevention focus (M=1.74). Also, the participants in high psychological safety acquired more approach skills (M=1.21) and fewer avoidance skills (M=1.53) than the participants in low psychological safety (approach skills: M=1.06; and avoidance skills: M=1.71). A greater difference across experimental groups was obtained; it was therefore decided to proceed with the data collection procedures.
Based on the results of the two pilot studies, the final version of the manipulations as noted above was developed for the formal data collection. Also, the experimental design as noted above was finalized. The results of the two pilot studies are shown in Table 3.7. The next section describes the data collection procedure.

Table 3.7

Results of Two Pilot Studies

<table>
<thead>
<tr>
<th>SRF</th>
<th>PSA</th>
<th>Pilot 1</th>
<th>Pilot 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Approach Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>Low</td>
<td>14</td>
<td>1.14</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>13</td>
<td>1.31</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>Low</td>
<td>15</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>17</td>
<td>1.29</td>
</tr>
<tr>
<td>Avoidance Skills</td>
<td>Prevention Focus</td>
<td>Low</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>13</td>
<td>1.38</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>Low</td>
<td>15</td>
<td>1.47</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>17</td>
<td>1.35</td>
</tr>
</tbody>
</table>

Note. SRF=situation-induced regulatory focus, PSA=psychological safety, N=group size, M=mean, SD=standard deviation.
Data Collection Procedure

Chronic regulatory focus of the participants was first measured. Then the participants were randomly assigned to a scenario with a situational priming of regulatory focus (situation-induced regulatory focus: promotion vs. prevention focus) and a description of psychological safety (high vs. low). They were asked to play the role of an assistant human resource manager. After that, they were trained in the skills of selecting job applicants via a videotaped training session. Subsequently, the participants were asked to recall the skills they had learned from the training session (to write down three to five skills they acquired from the training video). Finally, they were given a description of job applicants and were asked to evaluate the applicants and to provide hire/reject recommendations to HR managers. Participants’ background information was collected at the end of the questionnaire.

The random assignment of participants to the scenarios was carried out by the arrangement of the two questionnaires. The current experiment had one questionnaire administered before the training video and another after the video. The first questionnaire, that preceding the video, had four different versions (A, B, C, D) with different manipulation scenarios because the 2 (situation-induced regulatory focus: promotion vs. prevention focus) × 2 (psychological safety: high vs. low) factorial design had four combinations of scenarios. Before they were distributed to the participants, the first set of questionnaires was set up in the repeated order of A-B-C-D. The researcher distributed the ordered questionnaire to the participants. Hence, the assignment of the
experimental treatments was not self-selected and every participant had the same probability to receive the treatments.

Similarly, the second set of questionnaires provided after the training video was distributed to the participants. The second questionnaire had two versions (1, 2), because the evaluation table for the five job applicants had two random orders of the applicants so that the order effect on the evaluation could be reduced. Before they were distributed, the second set of questionnaires was set up in the repeated order of 1-2. The researcher distributed the questionnaires to the participants. Hence, the assignment was not self-selected and the participants had the same probability to receive the treatments.

The discussion to this point has centered on the experiment; the next section focuses on the data analysis procedure.

**Data Analysis**

This section first identifies the questions developed for statistical testing of the hypotheses of the study and then presents the data analytic methods used to examine them.

As noted above, the purpose of the current study was to test a series of hypotheses about whether and to what extent employees with certain chronic regulatory focus would behave differently in various situation-induced regulatory focus scenarios, and further, in different levels of psychological safety. In order to test the proposed hypotheses, the data analysis procedure was designed to statistically answer the questions below.
1. Will employees with a chronic promotion focus learn more approach skills than those with a chronic prevention focus? (For Hypothesis 1a)

2. Will employees with a chronic prevention focus learn more avoidance skills than those with a chronic promotion focus? (For Hypothesis 1b)

3. Is there an interaction effect between chronic regulatory focus and situation-induced regulatory focus? (For Hypothesis 1c)

4. Is there an interaction effect among chronic regulatory focus, situation-induced regulatory focus, and psychological safety? (For Hypothesis 2)

5. Do the number of learned approach skills positively affect participants’ hire/reject recommendations for job applicants? (For Hypothesis 3)

6. Do the number of learned avoidance skills negatively affect participants’ hire/reject recommendations for job applicants? (For Hypothesis 3)

The methods adopted to statistically test the questions above are discussed below, in the order of the questions.

A one factor Analysis of Variance (one-way ANOVA) was conducted to test the first two questions and the corresponding Hypotheses 1a & 1b. Individuals’ chronic regulatory foci (the independent variable) was coded as a single categorical variable (1=chronic promotion focus vs. 0=chronic prevention focus). The number of learned approach skills and the number of learned avoidance skills (the dependent variables) were measured as continuous variables with values ranging between 0 and 3. When the independent variable is categorical and dependent variables are continuous, a one-way ANOVA procedure is considered an appropriate test (Kuehl, 2000). Because the
independent variable only had two levels, comparing the means of the two groups using the one-way ANOVA was sufficient to test if the effects were significant.

The third question for the corresponding Hypothesis 1c was tested using a Multivariate Analysis of Variance (MANOVA). The third hypothesis suggests that situation-induced regulatory focus (situational promotion vs. prevention focus) interacts with the chronic regulatory focus (chronic promotion vs. prevention focus) in determining the level of skill acquisition (approach and avoidance skills). When the independent variables (situational and chronic regulatory focus) are categorical and the dependent variables (the number of acquired approach skills and the number of acquired avoidance skills) are continuous, an evaluation of the interaction term in MANOVA is an appropriate statistical method for testing the question (Kuehl, 2000). MANOVA is the “multivariate extension” of the univariate ANOVA and is able to test the effects of two or more independent variables on two or more dependent variables (Hair, Anderson, Tatham, & Black, 1998, p. 331).

Comparing the means of the groups and constructing the corresponding mean plots is sufficient as a simple effect analysis. Because each independent variable consist of only two levels, this analysis clearly shows effects of different levels of independent variables when the interaction effect was significant.

The moderation effects of psychological safety on situational and chronic regulatory focus was tested by interpreting the three-way interaction term : 2 (chronic promotion focus vs. prevention focus) × 2 (situation-induced promotion focus vs. prevention focus) × 2 (psychological safety: high vs. low) in MANOVA.
The moderation test followed the Baron and Kenny’s (1986) suggestions and examined the significance of the interaction term of three variables (Schneider, 1983). Baron and Kenny (1986) suggested that ANOVA is the way to test moderation when the independent variables are categorical. Schneider (1983) also proposed the interaction term of ANOVA to statistically test the moderation effects of contextual variables. In the current study, all independent variables are categorical, and the dependent variable (training acquisition) has two distinct components (two kinds of skills, as noted above). According to Baron and Kenny (1986), a moderation effect is supported when the three-way interaction term is significant. The authors also suggest that while the main effects terms and the two-way interaction terms may be significant, their significance adds no additional information to the test of a three-way moderation effect. When the three-way interaction term is significant, comparing the means of the different experimental groups and constructing the corresponding mean plots can illustrate the moderating effects of psychological safety.

Structural Equation Modeling (SEM) is not considered feasible for the current study. Two hundred and seven participants used for the study are an insufficient sample to allow for multi-group SEM procedures (Byrne, 2001).

The fifth and sixth questions were tested by regression analyses. These last two questions were designed to investigate the effects of the numbers of acquired approach and avoidance skills on the hire/reject recommendations. Since both the independent and dependent variables were measured on a continuous scale, regression analysis is considered appropriate (Neter, Kutner, Nachtsheim, & Wasserman, 1999). When the
independent variables in the regression analysis are significant, the un-standardized regression coefficients (Bs) indicate the magnitude of the effect of each variable.

In sum, this chapter described the methods of collecting data as well as the rationale behind those methods. This chapter also proposed the statistical approaches to test hypotheses. The next chapter presents the results of the data analysis.
Chapter 4

Results

This chapter presents the results of the data analysis. The chapter first provides descriptive statistics. Next, the results of the manipulation checks as well as realism measures are then described. Finally, the chapter presents the results of the tests of the hypotheses.

Descriptive Statistics

This section first describes data screening procedure, methods adopted to assign individuals to different groups based on their chronic regulatory focus, descriptive statistics (mean, standard deviation, partial correlations and reliabilities) of training acquisition (the number of acquired approach and avoidance skills) and behavior (hire/reject recommendations). Then, the section provides the sample sizes and means of training acquisition and the behavior of the different experimental groups.

Data Screening

The collected data had few missing values. None of the manipulation checks, training acquisition, and behavior indicators had any missing data. Some information was missing in terms of gender and other demographic variables. These were not
considered as pertinent to the study. Further, given the very small amount of missing data, it was more conservative to keep the original data set without doing any replacement. During the data analysis, listwise exclusion was applied.

There were no outliers in the data file. The variables were either measured by the 1 to 7 Likert scale or manipulated and further coded as 0 or 1. No evidence was found for violation of normal distribution of variables. All kurtosis and skewness statistics indicated normality at the $\alpha = 0.01$ level.

**Assignment of Participants to Groups Based on their Chronic Regulatory Focus**

As noted in the last chapter, two hundred and seven (207) participants were categorized into either a promotion focus or a prevention focus by the median split, following Cesario et al.'s established methods (2004). First, an exploratory factor analysis (EFA) was conducted (see Table 4.1).
<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compared to most people, are you typically unable to get what you</td>
<td>0.092</td>
<td>-0.493</td>
</tr>
<tr>
<td>want out of life?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Growing up, would you ever “cross the line” by doing things that</td>
<td>0.821</td>
<td>0.080</td>
</tr>
<tr>
<td>your parents would not tolerate?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How often have you accomplished things that got you “psyched” to</td>
<td>0.093</td>
<td>0.488</td>
</tr>
<tr>
<td>work even harder?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Did you get on your parents’ nerves often when you were growing</td>
<td>0.825</td>
<td>0.068</td>
</tr>
<tr>
<td>up?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How often did you obey rules and regulations that were established</td>
<td>-0.656</td>
<td>0.068</td>
</tr>
<tr>
<td>by your parents?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Growing up, did you ever act in ways that your parents thought</td>
<td>0.838</td>
<td>0.087</td>
</tr>
<tr>
<td>were objectionable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Do you often do well at different things that you try?</td>
<td>0.030</td>
<td>0.684</td>
</tr>
<tr>
<td>8. Not being careful enough has gotten me into trouble at times.</td>
<td>0.559</td>
<td>-0.211</td>
</tr>
<tr>
<td>9. When it comes to achieving things that are important to me, I find</td>
<td>0.242</td>
<td>-0.499</td>
</tr>
<tr>
<td>that I don’t perform as well as I ideally would like to do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I feel like I have made progress toward being successful in my life.</td>
<td>-0.027</td>
<td>0.685</td>
</tr>
<tr>
<td>11. I have found very few hobbies or activities in my life that capture</td>
<td>-0.073</td>
<td>-0.571</td>
</tr>
<tr>
<td>my interest or motivate me to put effort into them.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The EFA factor loadings (see Table 4.1) were from a principle component analysis using Direct Oblimin rotation with Kaiser normalization. Direct Oblimin rotation allows for correlated factors (Hair et al., 2006). Previous research has used Directed-Oblimin rotation when there was correlation between the factors (Cesario et al., 2004; Higgins et al., 2001). As stated later, two factors in the current study are negatively correlated. Therefore, Direct Oblimin rotation was used to ensure factor integrity.

The EFA (KMO measure of sampling adequacy=0.789; Bartlett’s Test of Sphericity Chi-Square=463.992 with df.=55 and p<0.001) explained 45.12% of the variance (promotion focus items explained 16.37% and prevention focus items 28.75%). Both promotion focus (eigenvalue=1.8) and prevention focus (eigenvalue=3.16) have eigenvalues greater than 1. Items with negative factor loadings were reverse scored for the scale calculations. Promotion focus was measured by items 1, 3, 7, 9, 10, and 11 (Cronbach’s $\alpha=0.60$). Prevention focus was measured by items 2, 4, 5, 6, and 8 (Cronbach’s $\alpha=0.80$). Promotion focus and prevention focus have a modest negative correlation ($r=-0.24$, $p<0.001$). The subsequent confirmatory factor analysis (CFA; 207 participants) by AMOS 5.0 (Arbuckle, 2003) showed that the measurement model of promotion focus and prevention focus fitted the data (RMSEA=0.04, GFI=0.95, AGFI=0.93, CFI=0.96, and IFI=0.96) (Hu & Bentler, 1999).

In this study, individuals’ chronic regulatory focus scores were computed by subtracting prevention focus scores ($M=3.21$, $SD=0.77$) from promotion focus scores ($M=4.76$, $SD=0.51$). The median chronic regulatory focus score was 1.63. Hence, the participants with the chronic regulatory focus scores equal to or greater than 1.63 were
categorized as promotion focused (coded as 1 in the data file), and the participants scoring less than 1.63 were categorized as prevention focused (coded as 0 in the data file) (Cesario et al., 2004; Higgins et al., 2001). Based on this method, one hundred and four (104) participants were categorized as chronically promotion focused and one hundred three (103) participants as chronically prevention focused.

**Overall Descriptive Statistics**

The descriptive statistics of training acquisition and behavior of two hundred and seven (207) participants are presented in Table 4.2.

Table 4.2

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Approach Skills</td>
<td>1.24</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Avoidance Skills</td>
<td>1.61</td>
<td>0.72</td>
<td>0.13†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Behavior</td>
<td>3.85</td>
<td>0.86</td>
<td>0.07</td>
<td>-0.02</td>
<td></td>
</tr>
</tbody>
</table>

*Notes.† p<0.1 (2-tailed)*

M is mean, and SD is standard deviation.

The number of acquired approach skills and the number of acquired avoidance skills were moderately associated at α=0.1 level (r=0.13). The number of acquired
approach skills and the number of acquired avoidance skills were the two dimensions of training acquisition and assumed to be orthogonal to each other.

Behavior was significantly correlated with neither the number of acquired approach skills nor avoidance skills. Behavior was measured by two statements (“I will recommend that my supervisor hire___” and “I will recommend that my supervisor reject___”) for each job applicant. As suggested, the Cronbach’s α is not suitable to measure reliability of two items scale (Cortina, 1993). Thus, another reliability measure, including the item-to-total correlation (the correlation of the item to the summated scale score) and the inter-item correlation (the correlation among items), was used (Hair et al., 2006). The first statement and the second statement are highly correlated with the summated scale score of the two statements (r=0.935, p<0.001; and r=0.936, p<0.001, respectively). The first statement and the second statement are also highly associated (r=0.752, p<0.001). These correlation coefficients are greater than the cutoff criteria (0.5) of reliability measure and indicate the highly consistency of the two statements (Hair et al., 2006). The summated scale score of the two statements was used in the data analysis procedures.

**Descriptive Statistics of Experimental Groups**

The sample size and the mean values of training acquisition (the number of acquired approach and avoidance skills) and behavior are given in Table 4.3. As seen in the table, the sample sizes across cells are balanced.
Table 4.3
Descriptive Statistics of Experimental Groups

<table>
<thead>
<tr>
<th>CRF</th>
<th>SRF</th>
<th>PSA</th>
<th>N</th>
<th>APP</th>
<th>AVD</th>
<th>BE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention Focus</td>
<td>Prevention Focus</td>
<td>Low</td>
<td>26</td>
<td>0.96</td>
<td>1.62</td>
<td>3.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.77)</td>
<td>(0.75)</td>
<td>(0.63)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>28</td>
<td>1.04</td>
<td>1.57</td>
<td>4.04</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.79)</td>
<td>(0.74)</td>
<td>(0.82)</td>
</tr>
<tr>
<td></td>
<td>Promotion Focus</td>
<td>Low</td>
<td>23</td>
<td>1.26</td>
<td>1.39</td>
<td>4.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.86)</td>
<td>(0.66)</td>
<td>(0.85)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>26</td>
<td>1.15</td>
<td>1.46</td>
<td>3.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.67)</td>
<td>(0.58)</td>
<td>(0.93)</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>Prevention Focus</td>
<td>Low</td>
<td>24</td>
<td>1.42</td>
<td>1.75</td>
<td>3.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.93)</td>
<td>(0.79)</td>
<td>(0.91)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>24</td>
<td>1.17</td>
<td>1.71</td>
<td>3.77</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.92)</td>
<td>(0.62)</td>
<td>(0.70)</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>Promotion Focus</td>
<td>Low</td>
<td>30</td>
<td>1.30</td>
<td>1.90</td>
<td>3.87</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.99)</td>
<td>(0.80)</td>
<td>(0.81)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>26</td>
<td>1.65</td>
<td>1.42</td>
<td>3.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.69)</td>
<td>(0.70)</td>
<td>(1.03)</td>
</tr>
</tbody>
</table>

*Note.* CRF=chronic regulatory focus, SRF=situation-induced regulatory focus, PSA=psychological safety, N=group size, APP=the number of acquired approach skills, AVD=the number of acquired avoidance skills, and BE=behavior. Standard deviations are provided in parentheses.
Next, the manipulation checks are discussed. After that, the results of the hypotheses testing will be presented.

**Manipulation Checks**

The current section presents the results of the manipulation checks (see Table 4.4).

Table 4.4

*Results of the Manipulation Checks*

<table>
<thead>
<tr>
<th>SRF</th>
<th>PSA</th>
<th>N</th>
<th>MCSRF M</th>
<th>SD</th>
<th>MCPSA M</th>
<th>SD</th>
<th>MREAL M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention Focus</td>
<td>Low</td>
<td>50</td>
<td>3.36</td>
<td>1.89</td>
<td>2.87</td>
<td>1.25</td>
<td>4.48</td>
<td>1.34</td>
</tr>
<tr>
<td>High</td>
<td>52</td>
<td>5.69</td>
<td>1.79</td>
<td>5.37</td>
<td>0.86</td>
<td>4.63</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>Low</td>
<td>53</td>
<td>4.17</td>
<td>2.28</td>
<td>3.14</td>
<td>1.38</td>
<td>5.15</td>
<td>1.23</td>
</tr>
<tr>
<td>High</td>
<td>52</td>
<td>6.67</td>
<td>1.63</td>
<td>5.78</td>
<td>0.89</td>
<td>5.06</td>
<td>1.35</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* SRF=situation-induced regulatory focus, PSA=psychological safety, N=group size, M=mean, SD=standard deviation, MCSRF=manipulation checks of situation-induced regulatory focus, MCPSA=manipulation checks of psychological safety, and MREAL=manipulation checks of realism.
First, the manipulations had high validity because the participants perceived a difference between the different types/levels within treatments – in this case between a situation-induced promotion focus and a situation-induced prevention focus, and between high psychological safety and low psychological safety (Blodgett, Hill, & Tax, 1997; Shadish et al., 2002). The results from a one-way ANOVA indicated that the different types of situation-induced regulatory focus elicited differential responses ($F_{1, 205}=7.50$, $p=0.007$). A simple effect analysis indicates that the participants with a situation-induced promotion focus (mean=5.41) had greater values on the manipulation check item than did the participants with a situation-induced prevention focus (mean=4.55). Similarly, a one-way ANOVA indicated that the different levels of psychological safety elicited differential responses ($F_{1, 205}=268.30$, $p<0.001$). The participants who were assigned to a high psychological safety situation (mean=5.58) had greater values on the three manipulation check items than the participants assigned to the low psychological safety situation (mean=3.01).

Second, a high discriminant validity of the manipulations had also been shown because the treatments did not confound one another (Blodgett et al., 1997; Perdue & Summers, 1986). A MANOVA was conducted on the effects of situation-induced regulatory focus and psychological safety on training acquisition and behavior. The results of the MANOVA demonstrated that the main effects of situation-induced regulatory focus (Wilks’ $\lambda=6.35$, $p=0.002$) and psychological safety (Wilks’ $\lambda=144.35$, $p<0.001$) were significant, but the interaction effect was not (Wilks’ $\lambda=0.12$, $p=0.888$).

Finally, the mean rating on scenario realism was 4.84 with standard deviation=1.29, skewness statistics=-0.38, and kurtosis statistics=-0.25, thus suggesting
that participants in the current experiment “perceived the scenarios to reflect real-life experiences” with hotels (Mattila & Patterson, 2004, p. 340). A one-way ANOVA procedure was used to test whether individuals in each of four experimental situations considered the scenario as equally realistic. The test revealed significant differences among the four groups in terms of realism ($F_{3,203}=3.394$, $p=0.019$). Participants in the scenario of low psychological safety and situation-induced promotion focus perceived realism of scenarios higher than participants assigned in other scenarios (see Table 4.4). The realism measure scores were further statistically controlled in all hypotheses tests. However, no significant effects of the realism measure were observed.

Taken together, the results of the manipulation checks suggest that the manipulations were effective, and that further statistical tests were appropriate.

**Hypotheses Tests**

**Testing Hypotheses 1a & b**

Hypothesis 1a proposed that employees with a chronic promotion focus were more likely to acquire skills needed to accomplish the work tasks, while Hypothesis 1b postulated that employees with a chronic prevention focus were more likely to acquire skills to avoid mistakes.

The independent variable was chronic regulatory focus (coded 1=chronic promotion focus and 0=chronic prevention focus), and the dependent variable was
training acquisition (the number of acquired approach skills and the number of acquired avoidance skills). The results showed that chronic regulatory focus had significant effects on the number of acquired approach skills ($F_{1, 204}=6.16$, $p=0.014$) and had marginally significant effects on the number of acquired avoidance skills ($F_{1, 204}=3.57$, $p=0.060$).

Participants with a chronic promotion focus (mean=1.38, standard deviation=0.90) acquired more approach skills than participants with a chronic prevention focus (mean=1.09, standard deviation=0.77). Thus, Hypothesis 1a was supported.

Participants with a chronic promotion focus (mean=1.70, standard deviation=0.75) also acquired more avoidance skills than participants with a chronic prevention focus (mean=1.51, standard deviation=0.68). This observation is different from the prediction made in Hypothesis 1b which stated that individuals with a chronic prevention focus are more likely to acquire avoidance skills.

In order to verify the hypothesis, an additional paired-sample T test was conducted to explain this observation. A follow-up investigation was conducted to ascertain if chronic promotion focus participants had the same magnitude of increase (the extent to which the number of acquired avoidance skills is greater than the number of acquired approach skills) as chronic prevention focus participants. A paired-sample T test was considered appropriate to evaluate this since this test provides information on how each individual’s responses change across two variables (Ott, 1993). Therefore, an additional paired sample T test examines whether individuals with a chronic prevention focus more readily acquired avoidance skills.
The paired-sample T test demonstrated that the difference between the number of acquired approach skills and the number of acquired avoidance skills for participants with a chronic prevention focus (difference=0.41, t=4.81, p<0.001) was greater than the difference for participants with a chronic promotion focus (difference=0.32, t=2.75, p=0.007). In addition, for the participants with a chronic prevention focus, the number of acquired approach skills was significantly associated with the number of acquired avoidance skills (r=0.28, p=0.005), but not for the participants with a chronic promotion focus (r=-0.02, p=0.875). These results suggest that the participants with a chronic prevention focus were more susceptible to the avoidance skills than were the participants with a chronic promotion focus. Taken together, Hypothesis 1b was partially supported.

Figure 4.1 demonstrates the effects of chronic regulatory focus on training acquisition.
Hypothesis 1c postulated that the situation-induced regulatory focus (regulatory focus priming) moderates the effects of chronic regulatory focus on training acquisition. As noted in Chapter 3, the test of Hypothesis 1c has to answer the question: “Is there an interaction effect between chronic regulatory focus and situation-induced regulatory focus?” As proposed in Chapter 3, a MANOVA was conducted. The results showed that chronic regulatory focus had significant main effects (Wilks’ $\lambda$=0.96, $p=0.016$) on the number of acquired approach skills ($F_{1,202}=5.72$, $p=0.018$) and the number of acquired
avoidance skills ($F_{1, 202} = 3.73$, $p = 0.055$). However, the results stated that the main effect of situation-induced regulatory focus (Wilks’ $\lambda = 0.978$, $p = 0.105$) and the two-way interaction term (Wilks’ $\lambda = 0.998$, $p = 0.836$) were not significant. Hence, Hypothesis 1c was not supported (see Figure 4.2 and Figure 4.3).
Hypothesis 1c: Approach Skills

Figure 4.2. Effects on the number of acquired approach skills
Hypothesis 1c: Avoidance Skills

Figure 4.3. Effects on the number of acquired avoidance skills
Testing Hypothesis 2

Hypothesis 2 proposed that psychological safety moderates the effects of chronic and situation-induced regulatory focus on training acquisition. As noted in Chapter 3, the test of Hypothesis 2 was to answer the question: “Is there an interaction effect among chronic regulatory focus, situation-induced regulatory focus, and psychological safety?”

A MANOVA was conducted to test Hypothesis 2. The results demonstrated a significant main effect on chronic regulatory focus (Wilks’ $\lambda=0.960$, $p=0.018$). The results also showed that the main effect of situation-induced regulatory focus (Wilks’ $\lambda=0.975$, $p=0.081$) and the three-way interaction term (Wilks’ $\lambda=0.973$, $p=0.070$) were marginally significant. Hence, Hypothesis 2 was marginally supported ($\alpha = 0.1$). In order to illustrate the interaction effect clearly, the mean comparisons across experimental groups were examined (see Table 4.3 and Figure 4.4).
Hypothesis 2

![Figure 4.4: Effects in Hypothesis 2](image)

Note. Low=low psychological safety, High=high psychological safety, CPM=chronic promotion focus, CPV=chronic prevention focus, SPM=situation-induced promotion focus, and SPV=situation-induced prevention focus

In high psychological safety conditions, participants with a chronic promotion focus acquired more approach skills in the situation with induced promotion focus (mean=1.65) than those in the situation with induced prevention focus (mean=1.17). In contrast, participants acquired fewer avoidance skills in the situation with induced promotion focus (mean=1.42) than those in the situation with induced prevention focus (1.71).
In high psychological safety conditions, participants with a chronic prevention focus did not acquire different numbers of approach or avoidance skills in either the situation with induced promotion focus or the situation with induced prevention focus (the differences were about 0.1).

In low psychological safety conditions, participants with a chronic promotion focus acquired about the same number of approach skills in the situation with induced promotion focus (mean=1.30) to those participants in the situation with induced prevention focus (mean=1.42). They also acquired slightly more avoidance skills in the situation with induced promotion focus (mean=1.90) than those participants in the situation with induced prevention focus (mean=1.75).

In low psychological safety conditions, participants with a chronic prevention focus acquired more approach skills in the situation with induced promotion focus (mean=1.26) than those participants in the situation with induced prevention focus (mean=0.96). In contrast, they acquired fewer avoidance skills in the situation with induced promotion focus (mean=1.39) than those participants in the situation with induced prevention focus (mean=1.62).

Only chronic promotion focus participants acquired more approach skills than avoidance skills, when they were in a scenario of situation-induced promotion focus and high psychological safety. Other experimental groups acquired less approach skills than avoidance skills.

Taken together, the results demonstrate that level of psychological safety interacts with participants’ chronic regulatory focus to produce varying patterns of skill acquisition
across the situation-induced prevention or promotion focus. Hence, Hypothesis 2 was marginally supported.

**Testing Hypothesis 3**

Hypothesis 3 assumed that various patterns of training acquisition would result in different behavioral patterns of trainees in their workplace. As noted in Chapter 3, the test of Hypothesis 3 was to answer two questions: “Do the number of learned approach skills positively affect participants’ hire/reject recommendations for job applicants?” and “Do the number of learned avoidance skills negatively affect participants’ hire/reject recommendations for job applicants?” A linear regression analysis was conducted. Results indicated that there was no significant relationship between approach skills (B=0.074, p=0.300) and avoidance skills (B=-0.030, p=0.723) and hire/reject recommendation. The overall model had R-square equal to 0.007 (F3, 203=0.486, p=0.692) and VIF equal to 1.018. The plot of the observed vs. predicted values of the model demonstrated a curve trend (see Figure 4.5). As suggested by statisticians, a follow-up curve estimation was conducted since a non-linear relationship was observed (Neter et al., 1999).
The results of the curve estimation by comparing different types of non-linear models demonstrate that the cubic model had the best fit among different equations (see Table 4.5, Figure 4.6 and Figure 4.7). In the cubic models, the number of acquired approach skills had marginally significant effects on participants’ hire/reject recommendations (p=0.073) but the number of acquired avoidance skills did not (p=0.601). Hence, Hypothesis 3 was partially supported.

*Figure 4.5.* The plot of the observed vs. predicted values
Table 4.5

Results of the Curve Estimation

<table>
<thead>
<tr>
<th>IV</th>
<th>Equation</th>
<th>Model Summary</th>
<th>Parameter Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$R^2$</td>
<td>F</td>
</tr>
<tr>
<td>Number of</td>
<td>Linear</td>
<td>0.005</td>
<td>0.983</td>
</tr>
<tr>
<td>Acquired</td>
<td>Quadratic</td>
<td>0.007</td>
<td>0.729</td>
</tr>
<tr>
<td>Approach</td>
<td>Cubic</td>
<td>0.033</td>
<td>2.338</td>
</tr>
<tr>
<td>Skills</td>
<td>Compound</td>
<td>0.005</td>
<td>1.073</td>
</tr>
<tr>
<td>Logistic</td>
<td>0.005</td>
<td>1.073</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Exponential</td>
<td>0.005</td>
<td>1.073</td>
</tr>
<tr>
<td></td>
<td>Logistic</td>
<td>0.005</td>
<td>1.073</td>
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<tr>
<td>Number of</td>
<td>Linear</td>
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<tr>
<td>Avoidance</td>
<td>Cubic</td>
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<td>0.623</td>
</tr>
<tr>
<td>Skills</td>
<td>Compound</td>
<td>0.001</td>
<td>0.160</td>
</tr>
<tr>
<td>Logistic</td>
<td>0.001</td>
<td>0.160</td>
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<tr>
<td>Logistic</td>
<td>0.001</td>
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<tr>
<td>Logistic</td>
<td>0.001</td>
<td>0.160</td>
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</tbody>
</table>

Note. The dependent variable was behavior (the participants’ hire/reject recommendations); IV=independent variable.
Figure 4.6. Estimation plot of the number of acquired approach skills
However, although the curve estimation states a non-linear relationship between training acquisition and behavior, Neter et al. (1999) said that it’s not suitable to find expressions to further interpret the curve estimation. Further, the low R-square (=0.033) also limited the discussion of the results. As a result, the current study does not discuss Bs.

In sum, the results of the data analysis found supportive evidence for Hypotheses 1a, 1b, 2, and 3, but not for Hypothesis 1c. Accordingly, Chapter 5 interprets the results of the study, discusses its theoretical and practical implications, and concludes with the study’s limitations.

Figure 4.7: Estimation plot of the number of acquired avoidance skills
Chapter 5
Discussion and Conclusions

The current chapter first summarizes and interprets the results of the study. Next, theoretical and practical implications of the results are presented. The chapter concludes with the study’s limitations.

Discussion

The study found that participants with a chronic promotion focus were more likely to learn approach skills, while participants with a chronic prevention focus were more susceptible to learning avoidance skills. Next, although the two-way interaction effects between chronic regulatory focus and situation-induced regulatory focus were not supported in the study, the three-way interaction effects among chronic regulatory focus, situation-induced regulatory focus, and psychological safety were marginally supported. That is, when psychological safety was high, participants with a chronic promotion focus had different patterns of training acquisition in the situation-induced promotion vs. prevention focus, and when psychological safety was low, participants with a chronic prevention focus had a different pattern of training acquisition in the situation-induced promotion vs. prevention focus. Finally, the study found that the number of learned approach skills had marginally significant effects on participants’ hire/reject
recommendations, whereas the number of learned avoidance skills had no significant effects. The current section discusses the results following the order of the hypotheses.

According to Higgins’ (1997) regulatory focus theory, Hypothesis 1a predicted that employees with a chronic promotion focus were more likely to acquire skills related to achievement in job performance, while Hypothesis 1b predicted that employees with a chronic prevention focus were more likely to acquire skills related to mistake avoidance in job tasks. The experimental results supported the predictions of the two hypotheses. The results suggested that employees with different chronic regulatory foci acquired different patterns of training acquisition. Accordingly, employees with a chronic promotion focus regulated their actions to acquire training content about what they should do in order to achieve job performance, while employees with a chronic prevention focus regulated their actions to acquire training content about what they should not do in order to avoid mistakes in job tasks. Hence, the regulatory focus theory explaining employees’ self-regulation actions and corresponding consequences holds in the training context.

Hypothesis 1c postulated an interactive effect between chronic regulatory focus and situation-induced regulatory focus: employees with certain chronic regulatory focus will behave differently under different types of situation-induced regulatory focus. However, the results of the current study did not support this expectation. This might have been caused by the marginally significant three-way interaction effects among chronic regulatory focus, situation-induced regulatory focus, and psychological safety, or by the potential methodological limitations, which will be discussed later.
Applying regulatory focus theory to organizational research, Hypothesis 2 considered the moderating effects of psychological safety on the relationships between regulatory focus and training acquisition. Hypothesis 2 was marginally supported. The results found that the three-way interaction term among chronic regulatory focus, situation-induced regulatory focus, and psychological safety was marginally significant in the experiment. The results suggest that when feeling free to behave in their own way and style, employees with a chronic promotion focus tend to act freely to regulate themselves differently in various task orientations (accomplishing the tasks or avoiding mistakes in the tasks). On the contrary, when feeling fearful of behaving in their own way and style, employees with a chronic prevention focus tend to put their attention on carefully regulating themselves in different task orientations. Moreover, previous studies supported this finding. Message framed as situational promotion focus (gain or no-gain conditions) was more persuasive when individuals perceived low risk (high psychological safety) and loss-framed message was more persuasive when individuals perceived high risk (low psychological safety) (Lee & Aaker, 2004). Negative feedback (low psychological safety conditions) increased chronic prevention focus participants’ motivation, whereas positive feedbacks (high psychological safety conditions) increased chronic promotion focus participants’ motivation (Van-Dijk & Kluger, 2004). Sassenberg, Kessler and Mummendey (2003) found that a promotion focus individual has in-group favoritism when allocating positive resources but not negative resources, while a prevention focus individual has in-group favoritism when allocating negative resources but not positive resources. The current study found the similar pattern of results. High psychological safety stimulates promotion focus employees, whereas low psychological
safety stimulates prevention focus employees. In summary, different levels of psychological safety in organizations stimulate different types of employees to regulate their behaviors in different ways, depending on varying task requirements.

Nonetheless, the results of Hypothesis 1c and Hypothesis 2 were either not significant or were only marginally significant. The current study did not find the hypothesized significant interaction between chronic and situation-induced regulatory focus. Further, the study only surfaced marginally significant three-way interactions among chronic regulatory focus, situation-induced regulatory focus, and psychological safety. These findings may due to either theoretical or methodological reasons as explained below.

Theoretically, the life-span perspective of motivation and self-regulation theories might explain the results. Heckhausen and Dweck (1998) suggested “a developmental perspective” over the “process-oriented” motivation theories (p. 5). They said that developmental factors such as “different historical periods, different cultures, and different periods of life” can lead to context-driven variations in individuals’ “psychological processes” (Heckhausen & Dweck, 1998, p. 5). Further, “stable individual differences” can be greatly “sensitive” to context-driven variations (Heckhausen & Dweck, 1998, p. 5). Individual characteristics in motivation and self-regulation are “uniquely suited to a person’s developmental phase and context,” and, therefore, the developmentally context-appropriate characteristics are formed (Heckhausen & Dweck, 1998, p. 6). Specifically in the regulatory focus theory, Higgins and Silberman (1998) found that children’s primarily chronic regulatory focus was influenced by and fitted their parents’ social regulatory style (regulatory focus priming)
over time, and, therefore, chronic regulatory focus can also be regarded as a “life-span developmental” variable (p. 109). Higgins and Silberman’s (1998) findings were supported by a few studies about the parents’ or family’s impacts on child self-regulation. Shah (2003) found that priming significant others influences participants’ regulatory focus. Based on the study, Shah suggested that social interactions had an influence on individuals’ regulatory focus. Organizational culture may “shape” employees’ regulatory focus (Brockner & Higgins, 2001, p. 60). Eiser, Eiser, and Greco (2004) found that among survivors of childhood cancer, promotion-focused parenting encouraged expectations of recovery and a normal life, while prevention-focused parenting led to an overly protective concern with possible mishaps and illness recurrence. Wang, Qu, Lu, and Luo (2005) noted that chronic regulatory focus of Chinese college students was related to the family environment. Based on these studies, Brockner and Higgins (2001) suggested that organizational context may influence employees’ regulatory foci.

In the current study, chronic regulatory focus was measured by the regulatory focus questionnaire (RFQ; Higgins et al., 2001). The measure captures individuals’ subjective history of success in self-regulation. That is, chronic regulatory focus in the current study potentially referred to individuals’ experience of using their regulatory focus in a different context. In this study, the contextual factors were induced: situation-induced regulatory focus and psychological safety modeled the impact of task and organizational context on employees’ behavior. According to the life-span perspective of motivation and self-regulation, it is possible that situation-induced regulatory focus and psychological safety shaped employees’ self-regulation actions during employees socialization into the job. It is suggested that over time, employees’ self-regulation
processes change to fit the task and organizational climate. As a result, changed patterns of self-regulation processes are integrated into employees’ self-regulatory focus. That is, employees’ current state of chronic regulatory focus may already include the effects of situation-induced regulatory focus and psychological safety on employees’ self-regulation. Situation-induced regulatory focus and psychological safety may therefore become insignificant when chronic regulatory focus (employees’ subjective history of successfully conducting chronic regulatory focus) is taken into consideration. Further, in this study, it is possible that participants (college students) did not really engage in the written scenarios of situation-induced regulatory focus and psychological safety and their chronic regulatory focus, which has taken their daily experiences of both situational induction of regulatory focus and psychological safety into consideration, determined their responses. This might explain why the effects of situation-induced regulatory focus and psychological safety were not significant.

Methodologically, the experiment itself may contain several limitations which restricted the demonstration of the hypothesized effects. First, college students were the sample of the experiment. College students in the current study might not adequately understand and be involved in the manipulations. The experimental manipulations in the present study required the participants to imagine they were working in the given scenario. Although the participants on average had about four years work experience, they were not real employees and, therefore, may have lacked both a real life sense of the experimental scenarios as well as attention to the differentiating details across the scenarios. Thus, limited real experience and attention may be constraining factors for the study.
Second, the scenarios may not be relevant enough to college students’ daily practice and consequently may decrease students’ involvement or engagement in the scenarios. Previous consumer research usually designed scenarios that are highly relevant to participants’ daily life but are not similar to organizational context, in such settings as camera selection (Chernev, 2004), shoe and laptop choices (Louro et al., 2005), and toothpastes feature information (Wang & Lee, 2006). In contrast, employees’ behavior research on regulatory focus usually measured individuals’ chronic regulatory focus and lacked organizational context manipulations (Medvedeff & Lord, 2006; Wallace & Chen, in press; Wu et al., 2006). This fact limited the scenario development of the current study. In addition, although college students in the current study had on average 4 years work experience, they were still not fully aware of the work environment and consequently may feel difficult building connections between the manipulations and their actions.

Finally, a larger sample size might help to demonstrate significant results. The marginally significant effects ($\alpha = 0.1$) might become more significant if the study had collected more responses.

Taken together, the theoretical and methodological reasons might lead to the non-significant and marginally significant effects of the tests on Hypothesis 1c and 2. Next, the results of the test on Hypothesis 3 are discussed.

Hypothesis 3 proposed that different patterns of training acquisition resulted in different behavioral patterns of employees in the workplace. The results partially supported the hypothesis and found that the effect of the number of acquired approach skills on participants’ hire/reject recommendations was marginally significant. This
partially supported the traditional view of training research that trainees transfer their learning acquisition into their positions (Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995; Kirkpatrick, 1959).

Two methodological limitations may have resulted in the weak significant results. First, the number of acquired approach skills, the number of acquired avoidance skills, and behavior (the hire/reject recommendation) may not have varied sufficiently enough to show a significant relationship because their standard deviations were just around 0.8 (see Table 4.2). Second, a stronger tie between the trained skills and the descriptions of five job applicants might have improved the testing. Even though content validation was ensured, a better consideration of the content linkages between different treatments across the stages of the experiment might have helped the demonstration of the causal relationship involved in the hypotheses.

The current study presents an asymmetric pattern of results. Hypotheses 1a & 1b found that both individuals with a chronic promotion focus and those with a chronic prevention focus learned more approach skills. Hypothesis 2 demonstrated that when psychological safety was high (low), the participants with chronic promotion (prevention) focus gained more approach skills in the situation with induced promotion focus than those in the situation with induced prevention focus, but learned fewer avoidance skills in the situation with induced promotion focus than those participants in the situation with induced prevention focus. Hypothesis 3 presented a weak correlation between the number of approach skills acquired and individuals’ hire/reject recommendations. In sum, the study provided more cues about the effects of approach skills than those of avoidance skills. Previous research also found an asymmetric effect of regulatory foci.
Global information processing fits a promotion focus, whereas local information processing fits a prevention focus (Forster & Higgins, 2005). Compared to teachers exhibiting a prevention focus, those with a promotion focus experienced less dejection-related or agitation-related emotions when their classroom management strategies failed (Leung & Lam, 2003). In organizations, leaders’ promotion focus has positive effects on subordinates’ innovation and creativity but leaders’ prevention focus does not (Wu et al., 2006). It may therefore be inferred that similar to other situations, regulatory foci contain asymmetric patterns in training outcomes.

Finally, only chronic promotion focus participants in a scenario of situation-induced promotion focus and high psychological safety acquired more approach skills than avoidance skills, whereas other experimental groups acquired less approach skills than avoidance skills. This result suggests that any risk or fear of negative consequences in workplace can activate employees to seek information about avoiding errors at work. Organizational climate, then, may moderate the types of self-regulation strategies of employees.

**Theoretical and Practical Implications**

The results of the current study contain several implications for theory and organizational practices.
Theoretical Implications

As shown in Chapter 2, regulatory focus theory has been very widely applied to industrial and organizational psychology research. The current study proposed and tested the interaction effects that may exist but have not yet been examined in previous research. The results of the present study bear fruit in several domains and contribute to theories in training motivation and effectiveness research, self-regulation in workplace studies, and organizational climate research, and to develop suggestions for future research.

First, the results of the present study enhance training motivation research by introducing the regulatory focus theory. As noted earlier, the self-regulation approach in training motivation research has traditionally focused on achievement motivation, goal orientation, and self-efficacy. The current study suggests that as a proximal process, trainees’ self-regulation consists of two types: promotion focus and prevention focus. Employees with a chronic promotion focus are more susceptible to the skills related to how to accomplish the task, while employees with a chronic prevention focus are more susceptible to the skills related to how to avoid mistakes in the task. Further, the current study found an interaction effect among chronic regulatory focus, situation-induced regulatory focus, and psychological safety in training acquisition. In situations of high psychological safety, employees with a chronic promotion focus acquire skills variously across situation-induced promotion and prevention foci; while in situations of low psychological safety, employees with a chronic prevention focus acquire skills variously across situation-induced promotion and prevention foci. Thus, the current study
investigated both individuals’ differences and environmental impacts on self-regulation in training motivation.

As a result, self-regulation theories in organizations have also been extended. Different levels of psychological safety stimulate employees with different types of chronic regulatory focus to respond differently to situational regulatory focus priming. Thus, the current study expands concepts of employees’ self-regulation by considering regulatory foci in the workplace.

The present study found the effects of chronic regulatory focus across the hypotheses tests to be significant, but the interaction effects only marginally significant. Looking at the life span perspective, the results of the present study can explain the idea that chronic regulatory focus, which was measured in this study by the individuals’ history of successful usage of the regulatory focus strategies, had already reflected the effects of task and organizational climates. Based on this, the current study may suggest that every individual’s self-regulatory focus has stable and unstable components. The stable component of an individual’s regulatory focus may be inherited from birth and doesn’t change. However, the unstable component may be adaptive to environmental cues. Individuals may continue to adjust their self-regulation strategies to react to situational influences. Future research needs to be conducted to identify the stable and unstable components of self-regulatory focus and to develop the proper measures to test the components and their adaptations across the life of individuals.

The present study has also extended the research on organizational climate. Traditionally, this research has focused on how employees generated shared perceptions about behaviors that have organizational support (Schneider, White, & Paul, 1998). The
current study investigated how employees’ fear of negative consequences in organizations (psychological safety) influences employees’ self-regulation. As presented earlier, this study found that high (or low) psychological safety conditions stimulate employees with chronic promotion (or prevention) focus to self-regulate differently across situation-induced promotion and prevention focus. Accordingly, the results reinforce a relatively small body of organizational climate research on the role of psychological safety in motivating employee responses. Further, the study suggested that organizational climate moderates employees’ choice of the types of self-regulation strategies using at their workplace. Then, the relationship between organizational climate and self-regulation has been shown.

The current study has also generated several topics for future research. First, training motivation research can be undertaken to investigate the linkages between regulatory focus and other self-regulation motives such as goal orientation and self-efficacy, as well as the linkages between regulatory focus and distal factors such as cognitive abilities and job stress.

Second, self-regulation research can move beyond a regulatory focus in different organizational settings to integrate regulatory focus theory with social learning perspective and control theory into a united model of self-regulation in the workplace. For example, researchers can extend Wallace and Chen’s study (in press) by investigating whether in the context of safety climate, employees’ self-efficacy and managers’ feedbacks interact with employees’ chronic or situation-induced regulatory foci to determine employees safety performance as well as job performance.
Third, the organizational research can look at how psychological safety operates in other organizational settings such as job performance, and how psychological safety is connected with other organizational climate variables such as perceived organizational support. For example, future research can extend Kahn’s (1990) theory by investigating whether psychological safety interacts with psychological meaningfulness and availability to determine employees’ job performance. Further, future organizational research can also illustrate how organizational climate moderates employees’ self-regulation.

Fourth, further research may be needed to identify the specific predictors of regulatory focus in organizations. As discussed in Chapter 2, chronic regulatory focus was generally influenced by individuals’ needs, self-concept, and immediate situations. However, in the organizational context, employees’ regulatory focus may also be generated by some factors specific to work environments such as compensation systems, leadership styles, and affective interaction experiences with customers. Moreover, it would also be interesting to investigate how and why training as well as other organizational factors may affect employees’ regulatory foci. Behavior role modeling is a commonly used training method and incorporates the principles of social learning theory (Goldstein, 1980; Noe, 2002; Wexley, 1984). Behavioral role modeling presents trainees with “a model which demonstrates key behaviors to replicate” and “provides trainees with the opportunity to practice the key behaviors” (Noe, 2002, p. 228). Brockner and Higgins (2001) implied that behavioral role modeling is a way for organizational authorities to shape their subordinates’ regulatory foci: “The more that the actions taken by authorities suggest that they are either promotion focused or prevention
focused, the more likely it may be for their subordinates to follow suit” (p. 57). This also implies that other organizational factors such as managers’ daily practices and organizational climate may influence employees’ regulatory foci. Further research is necessary to identify and illustrate the process by which employees’ regulatory foci are formed.

Fifth, it must be meaningful that future researchers develop the scale of chronic regulatory focus for organizational settings such as hotel and restaurant settings. The organizational version of the measurement of chronic regulatory focus would be beneficial for future empirical research’s face validity. The organizational version can surely enhance future empirical studies on the effects of chronic regulatory focus in many organizational settings such as job selection, decision making, and job performance.

Sixth, the current study investigated how different levels of psychological safety stimulate employees with various chronic regulatory foci to behave differently across different situational priming of regulatory focus. Future research can look at how the same employees with certain types of chronic regulatory focus change their behaviors across situation-induced promotion and prevention focus when psychological safety varies from high to low.

Seventh, cultural difference should also be considered in future studies. Cultural differences led to interaction effects with regulatory focus on participants’ motivation and behavior, such as consumers’ impatience (Chen et al., 2005) and individuals’ motivation as affected by positive and negative role models (Lockwood, Marshall, & Sadler, 2005). Culture differences may also lead to individuals’ differences in regulatory focus: Chinese may have greater prevention focused tendency to use punishment-based strategies (Leung
& Lam, 2003). The current study used American college students as the sample and, consequently, left space for the future research on cultural differences.

Eighth, future research can test the direct link between chronic regulatory focus and trainees’ post-training behavioral patterns. Although the current study controlled such direct link by a laboratory experiment, testing such direct link may be helpful for both training research and other organizational research topics such as job selection.

Ninth, future research can also test the present hypothesized model by fixing the limitations which will be discussed later. For example, future investigation can recruit real hotel employees as participants whose real experience may help testing the hypotheses.

Finally, it would be meaningful for service management researchers both to investigate the role of training in service settings. For example, future research can investigate how and why training, as one of the “foundation issues” of “contextual factors”, in service organizations influences service quality and customer satisfaction (Schneider et al., 1998, p. 151). Further, future studies can determine the role of training effectiveness when training is influencing organizational outcomes.

**Practical Implications**

The results of the current study may also help managers in organizations. First, line managers and human resources managers can discover in this study more ideas about how to make training more effective. The study results demonstrate that individual and environmental factors can influence trainees’ self-regulation during and after training.
They can expect certain training outcomes when selecting employees with certain types of chronic regulatory focus. They can also design training to fit their trainees’ chronic regulatory focus in order to achieve better training acquisition. Managers’ daily practice and orientation in designing tasks for trainees may also influence the trainees’ learning and the transfer of training content.

In order to get the best work performance in different tasks, managers may frame their expectations and requirements differently. For tasks involving idea generation, managers may prime employees to be promotion focused in order to get them to focus on such outcomes as the maximum number of ideas. On the other hand, for other tasks such as work safety, managers may prime employees to be prevention focused to draw employees’ attention on preventing mistakes and to work more safely. This idea may contribute to the most common self-regulation practice: emotion regulation and emotional labor in service encounters.

Emotion regulation refers to individuals’ regulation of their emotions to fit social needs. Service employees can be further classified as an emotional labor since service employees are paid to regulate their negative emotions for the organizational good (Grandey, 2000; Gross, 1998a; Rafaeli & Sutton, 1987). Emotional labor can negatively impact individuals’ health and work, as shown in previous studies. If managers are aware of individuals’ regulatory focus and understand how to influence employees’ self-regulation processes, such managers might be able to frame service tasks to best suit individuals’ performance on the job. Consequently, front-line employees may suffer fewer negative effects such as stress. Therefore, service managers and front-line
employees might benefit from understanding individuals’ regulatory focus and how to influence their focus.

Finally, organizational systems should induce employees’ psychological safety across positions. Organizations should let employees feel safe when managers want employees to accomplish work tasks. In contrast, organizations should increase employees’ perceived fear when managers wish employees to be careful to avoid mistakes and errors in the workplace.

Limitations

The present study contains several methodological concerns to which scholars and practitioners should pay attention. This section summarizes the limitations which have been discussed in other sections.

First, college students were the sample of the experiment. Even though a student sample in a laboratory experiment increases the internal validity and the sample’s homogeneity, college students in the current study may have decreased the external validity and generalization (Mook, 1983; Sears, 1986). Also as noted earlier, the students’ limited real experience and attention may have constrained the study. For example, when conducting the content validation, the current study used college students. Although the final sample participants were also college students, the scale would be better if the participants of the content validation were hotel managers with intensive management experience. In addition, better inductions may help the experiment. The information in the scenarios might be too lengthy and complex for college students to
understand and respond. The strength of the incentive to engage in training video might not be as strong for college students as it would be for employees who need to know these skills on the job. College students’ individual learning preference may also bias the data. Further, college students may not be able to represent other groups of people. This may restrict the generalization of the current study’s results.

Second, a larger sample size will better test the hypotheses and provide more significant results (Bateson & Hui, 1992). The marginally significant effects ($\alpha=0.1$) of Hypothesis 2 might have been more significant if the study had collected more responses.

Third, the training video session has only one training method: lecture. The different effects of various training methods have different learning outcomes with different training content (Noe, 2002). Accordingly, the lecture may not be the best way to train participants in the particular topic: job selection.

Fourth, as discussed earlier, a stronger connection between the training skills and the descriptions of five job applicants may help the test of Hypothesis 3. Even though the content validity of training skills and job applicants’ descriptions was examined, it will be helpful if job applicants’ descriptions are designed more consistent with training skills.

Fifth, variation of approach skills and avoidance skills was limited (from 0 to 3). This may reduce the possibility of the current study to obtain significant effects (Neter et al., 1999; Shadish et al., 2002). If the number of acquired approach skills and that of avoidance skills had greater variation, the association between training acquisition and behavior would be more significantly shown. Also when developing the avoidance skills, the current study had double negative wording which may confound the participants’ understanding on materials.
Sixth, the results of Hypothesis 3 had a low R-square. This indicates that the hypothesized effects did not fit the data well (Neter et al., 1999). Consequently, readers should use the results and recommendations of this study with caution.

Seventh, the items of chronic promotion focus were observed lower reliability (Cronbach’s α=0.60) than the critical value (0.70) suggested by statisticians (Hair et al., 2006). This may imply further research to refine the scale.

Eighth, participants in four experimental groups perceived differently in terms of scenarios’ realism. Although the realism scores were statistically controlled in hypotheses tests and had no significant effects on dependent variables in this study, different perceptions of scenarios’ realism across participants in four experimental conditions may confound the effects of manipulations.

Ninth, the training video was designed in a classroom setting. But the classroom setting is different from a training setting in an organization (Noe, 2002). Future research may test whether the results of the current study will be held in an actual training context.

Finally, a median-split may not be the best way to categorize participants’ chronic regulatory focus. Following the procedure suggested in previous studies (Cesario et al., 2004; Higgins et al., 2001), the current study used a median-split to categorize participants into two types: chronic promotion focus and chronic prevention focus. As discussed earlier, the median-split may involve a loss of information about participants (see Kanfer & Ackerman, 1989). For example, it is possible that two participants who have fairly similar chronic regulatory focus scores were separated into two distinct types artificially through the median-split procedure. However, chronic regulatory focus that was categorized by a median-split in fact, showed more significant outcomes than a
continuous measure of chronic regulatory focus in this study. Thus, the median-split was
used for the purpose of the current study. However, future research should consider the
use of a continuous measure to evaluate chronic regulatory focus.

Conclusion

The current study investigated the effects of chronic regulatory focus on training
effectiveness, moderated by situation-induced regulatory focus and psychological safety.
Consistent with previous research, the current study found that employees with a chronic
promotion focus were more likely to obtain the skills related to how to accomplish the
task, while employees with a chronic prevention focus were more likely to acquire the
skills related to how to avoid mistakes in the task. Extending existing research, the
current study also found that in situations of high psychological safety, employees with a
chronic promotion focus regulated themselves in different ways across situation-induced
promotion and prevention focus. In situations of low psychological safety, employees
with a chronic prevention focus regulated themselves differently across situation-induced
promotion and prevention focus. Together, these results suggest that psychological
safety is an important moderating variable. Despite the limitations the study may have,
the theoretical and practical implications of the current study may provide future research
and managerial practices with a better understanding of training motivation and
effectiveness, self-regulation in the workplace, and organizational climate.
Bibliography


and self-regulation across the life span (pp. 78-113). Cambridge, United Kingdom: Cambridge University Press.


Appendix A

Scenarios

**Scenario A: Situation-Induced Promotion Focus and High Psychological Safety**

You are an assistant human resources manager in a hotel where you feel able to show and employ your true self. When you express your personal ideas and demonstrate your abilities, no negative consequences (for example, your job is not in jeopardy) result. You do not feel that your status and career in the hotel is threatened.

Your task, specifically, is to provide your supervisor with evaluations and hiring recommendations of job applicants. Your compensation includes your hourly wage as well as bonuses. If you provide accurate evaluations and hiring recommendations, you will earn a bonus from the HR department. Otherwise, you will not earn a bonus.

**Scenario B: Situation-Induced Prevention Focus and High Psychological Safety**

You are an assistant human resources manager in a hotel where you feel able to show and employ your true self. When you express your personal ideas and demonstrate your abilities, no negative consequences (for example, your job is not in jeopardy) result. You do not feel that your status and career in the hotel is threatened.

Your task, specifically, is to provide your supervisor with evaluations and hiring recommendations of job applicants. Your compensation includes your hourly wage as well as bonuses. If you do not make mistakes in evaluations and hiring recommendations of job applicants, you will not lose your bonus. If you make mistakes, you will lose your bonus.
**Scenario C: Situation-Induced Promotion Focus and Low Psychological Safety**

You are an assistant human resources manager in a hotel where you do not feel able to show and employ your true self. When you express your personal ideas and demonstrate your abilities, negative consequences (for example, your job is in jeopardy) result. You feel that your status and career in the hotel is threatened.

Your task, specifically, is to provide your supervisor with evaluations and hiring recommendations of job applicants. Your compensation includes your hourly wage as well as bonuses. If you provide accurate evaluations and hiring recommendations, you will earn a bonus from the HR department. Otherwise, you will not earn a bonus.

**Scenario D: Situation-Induced Prevention Focus and Low Psychological Safety**

You are an assistant human resources manager in a hotel where you do not feel able to show and employ your true self. When you express your personal ideas and demonstrate your abilities, negative consequences (for example, your job is in jeopardy) result. You feel that your status and career in the hotel is threatened.

Your task, specifically, is to provide your supervisor with evaluations and hiring recommendations of job applicants. Your compensation includes your hourly wage as well as bonuses. If you do not make mistakes in evaluations and hiring recommendations of job applicants, you will not lose your bonus. If you make mistakes, you will lose your bonus.
Appendix B

Video Script

FADE IN:

A small classroom. A female native speaker is standing in the front of the classroom and next to the screen. A sign (yellow color) on the screen (blue color) reads: “SELECTING JOB APPLICANTS.”

Internal (INT.) MEDIUM CLASSROOM – DAY

THE STUDENTS’ Point of View (POV)

The native speaker is the TRAINER. She has a deep color professional dressing with light make-up. Her hair has been tightening back. She looks clean. She looks at students with a light smile.

INSERT – THE TRAINER

She starts talking with a light smile.
“Hi, I am Michelle. I am going to teach you how to select job applicants. 6 skills will be discussed today. I am going to explain these skills to you following the order on the slide.”

The trainer turns the screen to the next slide.

INSERT – THE SLIDE

“

- Don’t stereotype the candidate
- Avoid lack of knowledge of the position to be filled
- Look for general traits of success
- Look for an upward pattern of personal growth and development.
- Avoid inadequate screening of applicants’ information
- Look for potential, talent, and thinking ability.”

The trainer continues her speaking. The students are still looking at the slide.

“Don’t stereotype the candidate. You should not base your hiring decisions on color, race, national origin, sex, religion, age, or disability or you can run into problems with the law. You should also not base your hiring decision on the candidate’s fashion sense or high school or other irrelevant factors. A candidate who is most like us is not necessarily the most qualified person for the job. You should not use any criteria for hiring decisions that is irrelevant to the position.”
Avoid lack of knowledge of the position to be filled. Failing to know relevant job information will increase the chances of making the wrong choice by using the wrong standards. If you do not know the job, you will not know the appropriate criteria on which to base hiring decisions. You should not be unaware of the absolute requirements of the job and those that might be somewhat negotiable. Don’t overlook seemingly smaller things such as relocation help, availability, and travel.

Look for general traits of success. You should look for self-motivation and the ability to motivate others. You should also look for examples demonstrating the ability to solve job-related problems. Additionally, you should look for examples of implementing creative or innovative processes or ideas.

Look for an upward pattern of personal growth and development. The best predictor of job performance is past job performance. You should examine the work history of the candidate. Examine the reason for any significant breaks in working status. You should look at frequency of job change. Has the candidate jumped from job to job or followed more strategic job changes? You should be concerned if growth has flattened or declined along with motivation.

Avoid inadequate screening of applicants’ information. You want to make a timely selection decision, but be sure to avoid evaluation without a reviewing all materials first. You should not make decisions until all candidates have undergone all aspects of the screening process. You should also not be swayed by applicants. For example, do not let a candidate talk you out of completing a necessary selection procedure or make a hiring decision before other candidates have been screened.
Look for potential, talent, and thinking ability. Ask yourself the following questions. If this candidate does not have direct experience in this particular job, does he or she have other transferable skills? Does he or she display a willingness to learn? Has this candidate done his or her homework with regards to learning about the mission and the culture of the organization? Do the candidate’s responses show that he or she has taken initiative to research the position and organization? Will this candidate fit with the culture of the organization?

Overall, the ten skills to select job applicants are: don’t stereotype the candidate; avoid lack of knowledge of the position to be filled; look for general traits of success; look for an upward pattern of personal growth and development; avoid inadequate screening of applicants’ information; and look for potential, talent, and thinking ability.

Using these six skills will help you to hire the best people for the job. Thank you for your attention.

The students look at the slide about 3 seconds.

BACK TO SCENE
Appendix C

Descriptions of Job Applicants

Random Order #1

<table>
<thead>
<tr>
<th>Name</th>
<th>Descriptions</th>
<th>Recommendation</th>
</tr>
</thead>
</table>
| Kathy | Provides poor customer service; is excellent in sales and marketing; consistently displays a positive attitude; is adequate in accounting; sometimes an active listener, sometimes not. | 1. I’ll recommend that my supervisor **hire** Kathy.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor **reject** Kathy.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Doris | Provides adequate customer service; is poor in sales and marketing; consistently displays a positive attitude; is adequate in accounting; sometimes an active listener, sometimes not. | 1. I’ll recommend that my supervisor **hire** Doris.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor **reject** Doris.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Rick  | Provides excellent customer service; is adequate in sales and marketing; sometimes displays a positive attitude, sometimes a negative attitude; is excellent in accounting; is consistently a poor listener. | 1. I’ll recommend that my supervisor **hire** Rick.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor **reject** Rick.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Anthony | Provides adequate customer service; is excellent in sales and marketing; sometimes displays a positive attitude, sometimes a negative attitude; is poor in accounting; is consistently an active listener. | 1. I’ll recommend that my supervisor **hire** Anthony.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor **reject** Anthony.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Jeff  | Provides excellent customer service; is adequate in sales and marketing; consistently displays a negative attitude; is adequate in accounting; is consistently an active listener. | 1. I’ll recommend that my supervisor **hire** Jeff.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor **reject** Jeff.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
<table>
<thead>
<tr>
<th>Name</th>
<th>Descriptions</th>
<th>Recommendation</th>
</tr>
</thead>
</table>
| Anthony | Provides adequate customer service; is excellent in sales and marketing; sometimes displays a positive attitude, sometimes a negative attitude; is poor in accounting; is consistently an active listener. | 1. I’ll recommend that my supervisor hire Anthony.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor reject Anthony.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Jeff  | Provides excellent customer service; is adequate in sales and marketing; consistently displays a negative attitude; is adequate in accounting; is consistently an active listener. | 1. I’ll recommend that my supervisor hire Jeff.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor reject Jeff.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Doris | Provides adequate customer service; is poor in sales and marketing; consistently displays a positive attitude; is excellent in accounting; sometimes an active listener, sometimes not. | 1. I’ll recommend that my supervisor hire Doris.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor reject Doris.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Kathy | Provides poor customer service; is excellent in sales and marketing; consistently displays a positive attitude; is adequate in accounting; sometimes an active listener, sometimes not. | 1. I’ll recommend that my supervisor hire Kathy.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor reject Kathy.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
| Rick  | Provides excellent customer service; is adequate in sales and marketing; sometimes displays a positive attitude, sometimes a negative attitude; is excellent in accounting; is consistently a poor listener. | 1. I’ll recommend that my supervisor hire Rick.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree  
2. I’ll recommend that my supervisor reject Rick.  
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree |
Appendix D

The Consent Form

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH
The Pennsylvania State University

Title of Project: Self-Regulatory Focus, Psychological Safety and Training Effectiveness

Principal Investigator: Xinyuan Zhao, Graduate Student
6011 Mather Building
University Park, PA 16802
(814) 238-3012, xzc126@psu.edu

Advisor: Dr. Karthik Namastivayam
201 Mather Building
University Park, PA 16802
(814) 863-9774, kn1@psu.edu

Other Investigator(s):

1. Purpose of the Study: The study is designed to examine the effects of regulatory focus on training effectiveness, moderated by psychological safety. Specifically, the study wants to demonstrate how employees regulate their behavior during training.

2. Procedures to be followed: First, the subjects' chronic regulatory focus will be measured. Next, the subjects will be provided experimental manipulations which are contained in the questionnaire. Then, the subjects will be given a training session of skills about job selection. After training, the subjects will be asked to write down the skills they remember. Finally, the subjects will be asked to evaluate the given portfolios of several job applications and make recommendations for a HR manager.

3. Discomforts and Risks: There are no risks in participating in this research beyond those experienced in everyday life.

4. Benefits: In addition to the compensation of the study, you will know how to conduct job selections. The skills of job selection can help you do a better HR task in the future managerial practice.

5. Duration: It will take about 50 minutes to complete the study.

6. Statement of Confidentiality: Only the principle investigator will know your identity. The data will be stored and secured at the principle investigator's office in a locked file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. The following may review and copy records related to this research:

   The Office of Human Research Protections in the U.S. Department of Health and Human Services
   Penn State Social Science Institutional Review Board (IRB)
   Penn State Office for Research Protections (ORP)
7. **Right to Ask Questions**: You can ask questions about this research. Contact Xinyuan Zhao at 238-3012 with questions. If you have questions about your rights as a research participant, contact The Pennsylvania State University’s Office for Research Protections at (814) 865-1775.

8. **Compensation**: You will earn 3 extra credits for your research participation. Anybody who does not want to participate can write a paper as an alternative to the research participation in order to get extra credits. The paper will be about the leadership style of a manager they are familiar with. The paper will be asked to submit to the principle investigator and then, the principle investigator will make a list of students who can earn extra credits to the instructor, which will be based on either research participation or the paper. Thus, the instructor will not know whether a student earn extra credits from research participation or the paper. No negative effects on will happen.

   If you decided to write the paper, please submit it to Xinyuan Zhao within one week after the day research was conducted.

9. **Voluntary Participation**: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this signed and dated consent for your records.

<table>
<thead>
<tr>
<th>Participant Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Obtaining Consent</td>
<td>Date</td>
</tr>
</tbody>
</table>
Appendix E

Sample Questionnaire

Sample Part 1

Dear Students,

In order to participate in the study, you must be 18 years or older. If you are not 18, please stop reading and return the survey.

My name is Xiuyuan Zhao and I am responsible for this research project. I am currently a PhD student at the School of Hospitality Management in the College of Human and Health Development. I am conducting a research study to explore how organizations select job applicants. Thank you for your participation in this study. Your truthful responses will greatly enhance the value of this project.

Sincerely,

Xiuyuan Zhao
814-238-3012

Now, please carefully read the following questions and then respond to the questions.
I. This set of questions asks you HOW FREQUENTLY specific events actually occur or have occurred in your life. Please indicate your answer to each question by circling the appropriate number below it.

1. Compared to most people, are you typically unable to get what you want out of life?
   - never or seldom
   - sometimes
   - very often

2. Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?
   - never or seldom
   - sometimes
   - very often

3. How often have you accomplished things that got you “psyched” to work even harder?
   - never or seldom
   - sometimes
   - very often

4. Did you get on your parents’ nerves often when you were growing up?
   - never or seldom
   - sometimes
   - very often

5. How often did you obey rules and regulations that were established by your parents?
   - never or seldom
   - sometimes
   - very often

6. Growing up, did you ever act in ways that your parents thought were objectionable?
   - never or seldom
   - sometimes
   - very often

7. Do you often do well at different things that you try?
   - never or seldom
   - sometimes
   - very often

8. Not being careful enough has gotten me into trouble at times.
   - never or seldom
   - sometimes
   - very often

9. When it comes to achieving things that are important to me, I find that I don’t perform as well as I ideally would like to do.
   - never true
   - sometimes true
   - very often true

10. I feel like I have made progress toward being successful in my life.
    - certainly false
    - sometimes true
    - certainly true

11. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.
    - certainly false
    - sometimes true
    - certainly true
II. Now please imagine that you are working in the situation as described below.

You are an assistant human resources manager in a hotel where you feel able to show and employ your true self. When you express your personal ideas and demonstrate your abilities, no negative consequences (for example, your job is not in jeopardy) result. You do not feel that your status and career in the hotel is threatened.

Your task, specifically, is to provide your supervisor with evaluations and hiring recommendations of job applicants. Your compensation includes your hourly wage as well as bonuses. If you provide accurate evaluations and hiring recommendations, you will earn a bonus from the HR department. Otherwise, you will not earn a bonus.

Based on the description of the hotel, please use the scales provided below and tell to what extent you agree or disagree with each statement by circling ONLY ONE number that most closely matches your answer for each item.

<table>
<thead>
<tr>
<th></th>
<th>1 = Strongly Disagree</th>
<th>7 = Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) In the hotel, I feel safe being myself at work.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2) In the hotel, I am afraid to express my opinions at work.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3) The hotel has a threatening work environment.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Based on the description of the task, please answer the question below by circling ONLY ONE number.

4) Some workplace tasks involve pursuing positive job outcomes, whereas others involve trying to avoid negative job outcomes. How would you describe the task portrayed in the above scenario?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Pursuing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoiding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5) Overall, is the scenario above realistic?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now please reread the scenario above and then, watch the training video about how to select job applicants.
III. Please write down 3 to 5 job selection skills you obtained from attending the training session.

1. 

2. 

3. 

4. 

5. 
IV. Based on the skills you have learned in the training session, please fill out the evaluation form of the five job applicants for the front office manager in the hotel.

Your hotel is a medium-sized hotel targeting at the midprice ($60-100) segment. Your hotel offers upgraded service levels. With a reputation for offering consistent quality amenities, your hotel provides spacious accommodations including well-appointed rooms and decorated lobbies.

Front office managers in your hotel coordinate reservations and room assignments, as well as train and direct the hotel’s front desk staff. They ensure that guests are treated courteously, complaints and problems are resolved, and requests for special services are carried out. Front office managers may adjust charges posted on a customer’s bill.

<table>
<thead>
<tr>
<th>Name</th>
<th>Descriptions</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kathy</td>
<td>Provides poor customer service; is excellent in sales and marketing; consistently displays a positive attitude; is adequate in accounting; sometimes an active listener, sometimes not.</td>
<td>I’ll recommend that my supervisor hire Kathy.</td>
</tr>
<tr>
<td>Doris</td>
<td>Provides adequate customer service; is poor in sales and marketing; consistently displays a positive attitude; is excellent in accounting; sometimes an active listener, sometimes not.</td>
<td>I’ll recommend that my supervisor hire Doris.</td>
</tr>
<tr>
<td>Rick</td>
<td>Provides excellent customer service; is adequate in sales and marketing; sometimes plays a positive attitude, sometimes a negative attitude; is excellent in accounting; is consistently an active listener.</td>
<td>I’ll recommend that my supervisor hire Rick.</td>
</tr>
<tr>
<td>Anthony</td>
<td>Provides adequate customer service; is excellent in sales and marketing; sometimes plays a positive attitude, sometimes a negative attitude; is poor in accounting; is consistently an active listener.</td>
<td>I’ll recommend that my supervisor hire Anthony.</td>
</tr>
<tr>
<td>Jeff</td>
<td>Provides excellent customer service; is adequate in sales and marketing, consistently plays a negative attitude; is adequate in accounting; is consistently an active listener.</td>
<td>I’ll recommend that my supervisor hire Jeff.</td>
</tr>
</tbody>
</table>
V. Please describe your background. These questions are solely used for the purpose of statistical analyses. Your answers will be kept confidential.

1. Gender: Male Female

2. Age: ______

3. Student status: Freshman Sophomore Junior Senior

4. Ethnic background: Caucasian African American Asian Hispanic Pacific Islander Other

5. Your work experience is about ________ years (please write down 0 if you don’t have any work experience)

Thank You for Your Cooperation!
VITA

Xinyuan Zhao

EDUCATION

Doctor of Philosophy in HRIM
Degree Conferred 12/06
School of Hospitality Management, the Pennsylvania State University,
University Park, Pennsylvania

Minors: Psychology and Statistics

Master of Management in Hospitality, with Honors
Degree Conferred 7/01
School of Business, Zhongshan (Sun Yat-Sen) University, Guangzhou, China

Bachelor of Economics in Hospitality
Degree Conferred 7/98
School of Business, Zhongshan (Sun Yat-Sen) University, Guangzhou, China

REFEREED JOURNAL PUBLICATIONS

