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**THE SIGNIFICANCE OF LOCUS-OF-ESTEEM ENHANCEMENTS IN PRIDE-  
BASED ASSESSMENT OF THE NEED FOR ACHIEVEMENT**

A Thesis in

Kinesiology

by

Jonathan N. Metzler

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The thesis of Jonathan N. Metzler was reviewed and approved\* by the following:

David E. Conroy  
Associate Professor of Kinesiology  
Thesis Advisor  
Chair of Committee

George M. Graham  
Professor of Kinesiology

Scott M. Hofer  
Professor of Human Development and Family Sciences  
Director of Psychosocial Core, Center for Health Aging Research  
Oregon State University

Karl M. Newell  
Professor of Kinesiology and Biobehavioral Health  
Associate Dean for Research and Graduate Education

Rayne A. Sperling  
Associate Professor of Education

Philip E. Martin  
Professor of Kinesiology  
Head of the Department of Kinesiology

\*Signatures are on file in the Graduate School

## ABSTRACT

Contemporary sport motivation research, which has frequently focused on achievement goals, may be enhanced by classic achievement motivation theory (Atkinson, 1957; Murray, 1938) provided that central constructs are adequately conceptualized and operationalized. Approach- and avoidance-valenced achievement motives labeled need for achievement (nAch) and fear of failure (FF), respectively, were originally defined in affective terms, yet only the latter has received substantial attention in contemporary sport psychology research (Conroy, 2001a, 2001b, 2004). The first manuscript in this dissertation intended to reconceptualize nAch within the context of Lazarus' (1991; 1999) cognitive-motivational-relational theory of emotion and describe the potential value of bifurcating nAch into two forms of anticipatory pride based on the locus of esteem enhancement: intrapersonal (IaP; self-esteem enhancement) and interpersonal (IeP; social-esteem enhancement). The second manuscript reported the development and validation of the Need Achievement Pride Scale (NAPS), a measure of cognitive-motivational-relational beliefs associated with the nAch. College students ( $N = 595$ ) completed the NAPS and a variety of other measures. Confirmatory factor analyses supported a structure of two correlated factors including IaP and IeP beliefs that demonstrated factorial invariance across randomly drawn halves of the sample. In general, NAPS scores were associated with (a) high levels of nAch, reward responsiveness, drive, self-esteem, happiness, state hope, alpha and beta pride, and approach achievement goals, and (b) low levels of depression, but were unrelated to behavioral inhibition, positive and negative affectivity, FF, and avoidance achievement

goals. Results of simultaneous regression analyses delineated the unique meaning of each pride score. The final manuscript presented an investigation of achievement motives on individuals' affective responses to success/failure while trying to outperform others. College students ( $N = 168$ ) completed nAch and FF measures before performing a novel golf-chipping task. Participants rated their pride and shame levels prior to and following randomly assigned normative success or failure feedback that followed each of three performance blocks. Latent growth curve modeling revealed positive associations between IaP/FF and initial pride/shame, respectively. Analysis also exposed strong feedback-contingent changes in self-conscious affect. These results supported the predictive validity of nAch operationalized as an emotional disposition.

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**DEDICATION**

To Mom and Dad, this dissertation serves as a symbol of all the support, encouragement, and cultivation you afforded me throughout the years.

## **Chapter 1**

### **Introduction**

## Introduction

The flippant, albeit frequent, analysis of athlete motivation by media in pregame shows and postgame critiques highlights both the haziness, as well as the perceived importance, of the concept in the mainstream media. Spectators, critics, coaches, and athletes of all ages, as well as sport psychology professionals, are interested in what energizes, directs, and regulates achievement behaviors. In a recent interview, Anson Dorrance, head women's soccer coach at UNC-Chapel Hill, described "competitive fire" as an essential psychological characteristic for high-level competition:

The score is irrelevant, and your competition is not just with your opponent. It's with your teammates. You not only want to beat the opponent, you also want to be the best on the floor, the court or the field or the pool. In other words, it's aimed in all directions, it's not just focused on winning the game or the opponent. It is going after everything, it also goes after history. (Silva, 2006, p. 96)

This description highlights the variety of aims athletes may have regarding competition and alludes to how the energizing force – this competitive fire – resonates to instigate both acute and enduring achievement pursuits. It is a phenomenon characterized as enduring over time and across situations that becomes focused in the moment. Noticeably absent is an articulation of why these athletes want to achieve these aims in the first place – what is the fuel source that feeds this flame?

To understand achievement strivings in sport and beyond, scholars need to consider individual differences in achievement motives. Classic achievement motivation theorists originally distinguished two achievement motives: to approach success (i.e., need for achievement, nAch) and to avoid failure (i.e., fear of failure, FF; Atkinson, 1957; Murray, 1938). Additionally, these theorists distinctly conceptualized achievement motivation in affective terms. Recent scholarship in sport (Conroy, 2001a, 2001b, 2003;

Conroy & Coatsworth, 2004; Conroy & Elliot, 2004; Conroy & Metzler, 2004) has drawn on contemporary emotion theory (Lazarus, 1991) to reexamine the central affective characteristics of FF. This research has been particularly insightful for understanding the hierarchical and multidimensional structure of avoidance-valenced achievement motivation. This model allows researchers and consultants to uncover *what* individuals fear about failure. Approach-valenced achievement motivation research has not yet capitalized on some of these advances in contemporary emotion theory. Understanding what emotional consequences individuals anticipate gaining from success may help scholars to differentiate approach-valenced achievement motives which may in turn enhance understanding of achievement-related processes such as affective responses to feedback and self-regulatory strategies adopted in evaluative settings.

The overall purpose of the present dissertation was to examine the utility of differentiating forms of approach-valenced achievement motives based on contemporary theories of emotion and achievement motivation. The premise of this work was that the explanatory power of nAch with respect to affective responses may be enhanced by bifurcating the construct according to the anticipated locus of esteem for succeeding. Three manuscripts addressed three problems related to establishing the theoretical and empirical value of bifurcating the nAch construct.

The first manuscript focused on reviewing central theories related to achievement motivation scholarship and developing a theoretical rationale for distinguishing two dimensions of nAch to enhance understanding of achievement motivation. In sport, the achievement goal approach (Nicholls, 1976; Dweck, 1986) has dominated achievement motivation scholarship particularly in recent years (Duda, 2005). The scientific yield

from this line of research in sport and beyond has been substantial for understanding achievement processes; however, several limitations of this approach may be addressed by incorporating complementary strengths of work from classic achievement motivation theory (Elliot, 1997). More precise conceptualization and theoretically-coherent operationalization of the central constructs may enhance achievement motivation scholarship. Unlike achievement goals, nAch and FF were originally conceptualized as relatively enduring individual motives that energize and direct behavior. Classic achievement motivation theorists defined these motives in terms of emotions. Examination of these motives through the lens of contemporary emotion scholarship (Lazarus, 1991) may allow more precision in conceptualizing and operationalizing the constructs and potentially strengthen conclusions about the role of nAch in achievement processes and outcomes. Defined as a disposition to experience pride upon succeeding (Atkinson, 1957), it is argued that nAch could be divided into two forms of anticipatory pride based on whether success provides opportunity for self- or social-esteem enhancement (Lazarus, 1991). This manuscript explained the potential utility of bifurcating nAch based on the source of esteem enhancement and how differentiating this motive according to the locus of esteem may provide greater resolution for understanding achievement pursuits.

The second manuscript described a study designed to examine the psychometric properties of the Need Achievement Pride Scale (NAPS), a new measure of cognitive schemas associated with nAch developed specifically for this dissertation. Based on the literature review presented in the first manuscript, the schemas central to nAch assessment were those associated with anticipating self-esteem enhancement



(intrapersonal pride; IaP) or social-esteem enhancement (interpersonal pride; IeP) when faced with competence evaluation. Given that the construct validity of NAPS score interpretations has not yet received empirical support, this study examined the structural and external validity of NAPS scores using confirmatory factor analyses and group factorial invariance analyses using a randomly-selected comparison sample. Convergent and discriminant validity of IaP and IeP scores were assessed using a series of simultaneous regression analyses to differentiate relations to achievement motives, self-esteem, temperament, relevant affect (i.e., happiness, hope, pride, and depression), achievement goals, impression management, and self-deception.

The final manuscript tested two long-held theoretical assumptions of classic achievement motivation theory, that nAch and FF will predict baseline differences in pride and shame, respectively. This study also investigated one of the central substantive questions emphasized in the theoretical paper. One of the main arguments advanced for the utility of nAch was that bifurcation may enhance resolution for predicting achievement outcomes, particularly self-conscious affect responses to success and failure. Achievement motive dispositions tend to increase the likelihood of adopting particular achievement goals as self-regulatory strategies for guiding achievement striving (Elliot, 1997; Elliot & Church, 1997). Ntoumanis and Biddle (1999) found a weak relationship between affective responses and performance-approach goals. Given that individuals may adopt these goals for a variety of reasons including their achievement motives (Elliot & McGregor, 2001), differences in self-conscious affective responses to success/failure while trying to outperform others may be moderated by achievement motives. The third manuscript presented a study designed to predict changes in self-conscious affect

experienced by individuals faced with experimentally manipulated competence feedback. Latent growth curve analyses allowed for quantification of changes in pride and shame and investigation of person and situational variables as moderators of these changes.

## **Chapter 2**

### **Considering Locus of Esteem Enhancement for Conceptualizing Approach-Valenced Achievement Motives**

## Considering Locus of Esteem Enhancement for Conceptualizing Approach-Valenced Achievement Motives

Achievement motivation scholarship has been dominated primarily by two approaches, need achievement theory and achievement goal theory, referred to by Elliot (1997) as the “classic” and “contemporary” approaches, respectively. Individual differences in classically defined achievement motives have received limited attention in contemporary sport psychology research. Sport motivation scholarship throughout the years produced at least 200 empirical studies which evaluated motivation from an achievement goal perspective (Roberts, Treasure, & Conroy, 2007). In contrast, Roberts’ (2001) seminal text entitled *Advances in Motivation in Sport and Exercise* did not index achievement motives (i.e., need for achievement [nAch] or fear of failure [FF]). Recent work has increased consideration of these motives in sport research specifically by focusing on FF as an emotion-based motive disposition (Conroy, 2001a, 2001b, 2004). Classic achievement motivation theorists also linked nAch to emotion. Originally, Murray (1938) described nAch in terms of pleasant affect (e.g., elation); however, the emotion of pride was central to Atkinson’s (1957) definition of nAch. Parallel advancement of this approach-valenced complement to FF has not yet occurred. The purpose of the current paper was to clarify the role of nAch in contemporary achievement motivation research, identify limitations in nAch measurement, reconceptualize nAch within the context of modern emotion theory which suggests potential bifurcation of the construct, and describe the potential yield anticipated from differentiating the fundamental elements of nAch.

### **Levels of Analyses from an Individual Difference Perspective**

Motivation theories differ in the amount of emphasis placed on generality of central constructs, in part due to variations in levels of analysis utilized to conceptualize and operationalize motivational constructs. At the broadest and most fundamental level is temperament which refers to biologically-based individual differences in reactivity and self-regulation of reactivity (Rothbart & Hwang, 2005). Temperament has been conceptualized broadly as a universal construct, mostly in place at birth, which guides reactions to rewards and punishments regardless of context or domain (e.g., interpersonal relationships, competence evaluation). Recent scholarship characterized three types of temperament: exuberant (i.e., positive/approach), inhibited (i.e., negative/avoidant), and low reactive (Putnam & Stifter, 2005). The former two are most relevant presently because they are characterized by moderate levels of affective responsiveness. Individuals high in exuberant temperament are sensitive to rewards due to their stimulation of pleasant affect; therefore, they are motivated to engage in the environment. Individuals high in inhibited temperament are sensitive to punishment and the possibility of unpleasant affect, thus they are generally motivated to inhibit behavior to avoid this undesirable outcome. Empirical research frequently examines physiological systems such as heart rate, startle reflex, and brain hemispheric activation as indicators of temperament. This level of analysis may be too broad and distal from achievement strivings to contribute any practical power in predicting achievement outcomes. As a universal and innate construct, temperament is relatively resistant to change, thus, it is unlikely to be responsive to socialization experiences or interventions.

Achievement motives are theorized to be individual differences more proximal to achievement strivings than temperament because they are defined as providing energy and direction specifically for achievement pursuits. According to McClelland and colleagues (McClelland, Atkinson, Clark, & Lowell, 1953), “a motive is the reintegration by a cue of a change in an affective situation” (p. 28). Achievement motives are distinguished from other motives by the types of expectations that are learned to accompany evaluation. Specifically, achievement motives are defined in terms of expected “affect in connection with evaluated performance” (p. 79). Although there is some evidence to support a biological transmission of these motives, socialization is a strong determinant (Conroy, 2003; Conroy & Coatsworth, 2007; Elliot & Thrash, 2004). Contemporary achievement motivation approaches in sport conceptualize achievement motives, particularly FF, as outcome-contingent self-evaluative affect dispositions which are relatively stable over time and across contexts where competence is at stake. These cognitive-attributional schemas are theorized to be more specific and malleable than temperament; therefore, interventions such as coach or parent education may influence enduring motivational change (Conroy & Coatsworth, 2004, 2007).

In the 1970s, achievement motivation scholars shifted their focus for explaining achievement motivation. Researchers such as Nicholls (1976) and Dweck (1986) turned their attention toward how individuals conceptualize their ability and evaluate success. Achievement goal scholars contended that individuals may adopt two goal involvement states related to achievement striving. Task involved individuals reference competence against themselves (i.e., previous performance) or the task itself and thus are focused on the development of competence. Ego involved individuals reference competence against

the ability of others and are oriented toward the demonstration of competence within a social context. Scholars originally theorized achievement goals (i.e., goal involvement states) as situation-specific cognitive constructs yet also conceptualized dispositional constructs labeled task and ego orientations which were reflective of individual differences in tendencies to be task or ego involved, respectively (Nicholls, Cheung, Lauer, & Patashnick, 1989). Sport psychology research frequently utilizes dispositional goal orientations to operationalize situational achievement goals (Duda, 2001) which blurs levels of analyses.

Elliot's (1997; Elliot & Church, 1997) hierarchical model of achievement motivation integrated two traditions and clarified levels of analysis for each construct. Whereas achievement motives operate as individual difference variables and shed light on the energizing and directing forces that initiate achievement striving, achievement goals are the most "direct, proximal antecedents of achievement-related processes" (Elliot, 1997, p. 153); therefore, they are most adequately suited to operate at the situational level of analysis. Attending solely to individuals' goal involvement states may be insufficient for understanding their achievement motivation, processes related to achievement strivings, and consequences of goal involvement because achievement motives provide initial energy and direction for achievement pursuits. By focusing on person characteristics in the competence domain and situational self-regulatory strategies, scholars and practitioners may be able to uncover motivational signatures (Mischel & Shoda, 1995; Smith, 2006) that are associated with adaptive athlete behaviors such as learning, persistence in the face of failure, and performance.

### **Classic Approach to Achievement Motivation**

At the core of achievement motivation is the need for competence or the desire to be able to exert an intended effect on one's environment (Deci & Ryan, 2000; Elliot & Dweck, 2005; Elliot, McGregor, & Thrash, 2002; Harter, 1978; Murray, 1938; White, 1959). Harvard psychologist Henry Murray (1938) articulated a conceptualization of competence-related motivation in his description of personality characteristics observed in 50 college-aged men. Murray proposed the existence of several human needs that initiate human behavior. Among these needs he included nAch which motivated individuals:

To accomplish something difficult. To master, manipulate or organize physical objects, human beings, or ideas. To do this as rapidly, and as independently as possible. To overcome obstacles and attain a high standard. To excel one's self. To rival and surpass others. To increase self-regard by the successful exercise of talent (p. 164).

Murray grounded this nAch in the experience of pleasure. Specifically, "the subject welcomes obstacles (physical or mental), selects the hardest tasks – things that demand great exertion and courage – , in order to experience the elation of mastering them" (p. 91). Murray also described a drive complementary to nAch which he labeled need for infavoidance and conceptualized as a motive to avoid "failure, shame, humiliation, ridicule" (p. 81). It is clear from Murray's theory that need constructs related to achievement motivation centered on anticipation of outcome-contingent pleasant or unpleasant affects.

Murray's (1938) ideas stimulated a proliferation of research on achievement motivation. In his classic paper, White (1959) coined the term effectance motivation to describe a universal force present in all humans to explore, manipulate, and master the



environment. Effectance motivation was proposed to be manifested in early exploratory behaviors. White distinguished effectance motivation from drive theories of the day (Hull, 1943) which emphasized deficit reduction. The explicit link between affect and effectance motivation became evident in his later writings where he described “joy in being a cause” (White, 1965, p. 203) to highlight the immediate pleasurable affective nature of effective engagement with the environment.

The most widely known contributions came from McClelland and Atkinson and their colleagues (McClelland et al., 1953) who developed what has been referred to as the “classic approach” to achievement motivation theory (Elliot, 1997). According to Atkinson (1957), achievement settings are inviting to individuals high in nAch because they anticipate experiencing *pride in accomplishment* whereas these settings are threatening to individuals high in fear of failure (FF; i.e., infavoidance) because they anticipate experiencing *shame upon failing*.

Classic achievement motivation has two central strengths (Elliot, 1997). First, the initial conceptualization of nAch and FF within the classic approach distinguished between approach and avoidance motives which differentiates direction of energy (Atkinson, 1957; McClelland, 1951; Murray, 1938). In a general sense, approach motivation is energized by a pleasant or desirable possibility, whereas avoidance motivation is energized by an unpleasant or undesirable possibility (Elliot & Covington, 2001). The importance of the approach-avoidance distinction for motivation research was articulated by Elliot & Covington (2001); however, it is also salient specifically for sport motivation. Several contemporary sport psychology scholars have distinguished between approach and avoidance motivation (e.g., Conroy, Elliot, & Hofer, 2003; Cury, Biddle,

Sarrazin, & Famose, 1997; Cury, Da Fonseca, Rufo, & Sarrazin, 2002; Ommundsen, 2004; Elliot, Cury, Fryer, & Huguet, 2006; Cury, Elliot, Da Fonseca, & Moller, 2006; Duley, Conroy, Morris, Wiley, & Janelle, 2005; Conroy, Kaye, & Coatsworth, 2006). The majority of this work has utilized the approach-avoidance distinction to examine theorized maladaptive consequences of FF and subsequent avoidance achievement goals. Differentiating between motive dispositions that orient individuals to maximize pride or minimize shame can uncover unique achievement affect, behaviors, and cognitions associated with each. Individuals high in nAch prefer moderate difficulty, persist, are oriented toward the future orientation, desire information, achieve, and have positive, stable self-concepts as well as good physical health (see McClelland & Koestner, 1992). In contrast, high FF individuals avoid or disengage effort, experience competitive anxiety, engage in drug use in sport, and dropout of sport (see Conroy, 2001a; Birney, Burdick, & Teevan, 1969; Atkinson & Feather, 1966b; Elliot & Sheldon, 1997). Given the importance of distinguishing between approach and avoidance motives in general (Elliot & Covington, 2001; see also Higgins, 1997) and in sport, and the relative emphasis that has recently been placed on FF, the current paper aimed specifically at revisiting the role of nAch in achievement motivation.

A second strength of the classic approach in achievement motivation theory is its attention to explaining the energization of achievement behavior (Elliot, 1997). Individuals high in nAch anticipate experiencing the pleasant affect and positive self-evaluations associated with pride when their competence is at stake and thus are energized to engage in, if not seek out, moderately challenging achievement situations. Classic need achievement theory directly explains the reason people are energized to

approach or avoid competence-relevant situations and the general direction of their behavior. Despite these strengths, sport research has frequently overlooked the contributions of nAch in motivational processes.

### **Limitations of Existing Methods of Assessing the Need for Achievement**

One of the roadblocks that may have attenuated advancement of nAch research in sport could be lack of conceptual and empirical convergence between projective and self-report assessment methods. Discrepancies between measurement methods have been attributed to conceptual differences in the motive construct itself (McClelland, Koestner, & Weinberger, 1989). *Implicit motives* are conceptualized as needs outside of conscious awareness; thus, these motives were theorized to respond primarily to nonverbal stimuli (e.g., facial expressions, Schultheiss, 2001; Schultheiss & Pang, in press). In contrast, *explicit* (i.e., self-attributed) *motives* are characterized as conscious self-described motives reflective of values held by an individual and the individual's social culture. Explicit motives are conceptually linked to an individual's self-concept and may be susceptible to verbal stimuli (Schultheiss & Pang, in press). Given that verbal feedback from coaches, teammates, parents, and other important figures is prevalent in sport, explicit nAch may be of paramount interest for sport motivation research.

Motivation scholars (McClelland et al., 1989; Schultheiss & Pang, in press) argued that because of their independence, implicit and explicit motives predict different outcomes and have different developmental origins. Specifically, implicit motives were theorized to interact with activity incentives (i.e., reinforcements inherent to the task such as mastering the task), whereas explicit motives interact with social incentives (i.e.,

reinforcement external to the task such as meeting prescribed norms) to produce outcomes. Implicit motives predict non-declarative motivation measures which assess individuals' behaviors and processes that are outside of awareness, whereas explicit motives predict declarative measures of attributes accessible via introspection such as attitudes, beliefs, and decisions. In his meta-analyses of 105 randomly-selected nAch studies, Spangler (1992) found projective and self-report nAch measures predicted real-world achievement behavior well in the presence of activity and social incentives, respectively. These results supported the conceptual distinction between implicit and explicit nAch and affirmed the utility of both projective and self-report measures for understanding achievement strivings. More recently, Thrash and Elliot (2002) observed a small, but significant, positive relationship between implicit and explicit approach motives. This relationship was revealed to be stronger for individuals high in self-determination which suggests self-determined individuals appear better able to integrate non-conscious affective tendencies with cognitive achievement values than those low in self-determination.

### **Implicit Motive Assessment**

The most commonly used measure of nAch has been the Picture Story Exercise (PSE), a projective method of assessing implicit nAch (McClelland et al., 1953). When measuring nAch using the PSE, individuals are presented with four pictures intended to evoke thoughts regarding achievement. Individuals are presented with a picture for 10 to 15 seconds and given five minutes to compose a story describing the scenario displayed in the picture. Four questions are given to individuals to prompt their responses: a) What

is happening? Who are the persons?, b) What has led up to this situation? That is, what happened in the past?, c) What is being thought? What is wanted? By whom?, and d) What will happen, What will be done? Resulting written stories are scored for the presence or absence of achievement imagery defined as mention of competition with a standard of excellence. Then each story is coded (present or absent) on seven subcategories: a) stated nAch; b) successful, doubtful, or unsuccessful instrumental activity; c) positive and negative anticipatory goal states; d) internal or external obstacles; e) aid for goal pursuit; f) positive and negative affective states associated with goal attainment or nonattainment; and g) achievement thema, the degree to which achievement is central to the story (McClelland et al., 1953). The sum of these codes across all stories serves to operationally define nAch. Despite a relatively elaborate and involved content-analysis and scoring system (McClelland et al., 1953, pp. 107-138), reported interrater agreement has been largely acceptable (Atkinson, 1958a; Mitchell, 1961).

By coding the PSE for affective content, the measure clearly contains links to emotional states; however, examination of specific scoring instructions for affective states raises conceptual concerns with the PSE. According to McClelland and colleagues (McClelland, Atkinson, Clark, & Lowell, 1992), positive affect is scored if stories contain one of the following:

“(1) a positive affective state associated with active mastery or definite accomplishment (‘He *enjoys* painting,’ ‘He is *proud* of his accomplishment,’ ‘They are very *satisfied* with their invention’), or (2) *definite objective benefits* as a result of successful achievement which allow the inference of positive affect (‘His genius is acknowledged by millions,’ ‘The people are proud of the inventor,’ ‘Fame and fortune were his,’ ‘He received a raise in pay’) (p. 173).

Using this scoring method, stories containing explicit statements of joy, satisfaction, or pride would all receive identical positive affect scores. Current emotion

theorists clearly distinguish between these forms of pleasantly-valenced affect, yet this scoring method does not distinguish pride from other pleasant affects.

Heckhausen (1963) developed an alternate coding method to enhance the original coding system. Among the most salient changes for the present discussion were clarification of positive affect coding and the addition of a code for praise. According to Heckhausen, narratives should be coded for positive affect if individuals used emotions such as satisfaction, enjoyment, or happiness to describe an achievement-related plot but not emotions that characterize the absence of failure such as relief. Heckhausen added that “self-praise or thoughts which indicate increased self-esteem” (p. 11) should also receive a positive affect code. He also created an additional code labeled praise which was scored when a narrative describes an individual who praises, rewards, or distinguishes someone based on work or performance. Heckhausen’s coding system provided significant enhancement of PSE coding in two ways. First, it placed more distinct boundaries on positive affect; however, it still did not distinguish between pleasant-valenced forms of affect (i.e., pride, happiness, satisfaction remain equivalent). Secondly, Heckhausen subtly alluded to a potential bifurcation of hope for success (i.e., nAch) given that individuals could be coded on whether or not they articulated self-esteem enhancement via self-praise or esteem enhancement via praise received from others. Despite these rather important advancements, McClelland’s original coding system was used most frequently in PSE research.

Several psychometric criticisms have been levied against the PSE as an adequate measure of nAch including poor internal consistency and differential stability. Entwisle (1972) found internal consistency of the PSE to range from .30 to .40. Similarly, Fineman

(1977) reported low internal consistency and concluded “we can have little confidence that the (PSE) is measuring *any* unitary psychological construct” (p. 8). Reviews of stability coefficients (median  $r = .32$ , Fineman) ranging from two-week to 10-year intervals suggested that the rank ordering of individuals on nAch as measured by the PSE on multiple occasions is largely unstable; however, McClelland (1980; McClelland et al., 1989) argued that when administered and scored properly, PSE scores have adequate stability.

The PSE is also costly to administer and score. At approximately five minutes per picture, the PSE takes 20 minutes to complete. Trained coders can score four stories written by an individual in three to five minutes (McClelland, 1955). At least two coders must first be trained and interrater reliabilities of 0.85 must be obtained for acceptable use of the PSE (Atkinson & Raynor, 1974; Schultheiss & Pang, in press). McClelland (1955) reported a judge could obtain high agreement with an expert after three days of experience; however, Fineman (1977) asserted that “most studies employ just one scorer who checks his coding ability against that of the examples in the scoring manual” (p. 5). Due to its costly nature, it is not surprising few sport psychology studies have utilized the PSE (e.g., Davis, 1990; Fenz, 1973; Thakur & Thakur, 1980).

### **Explicit Motive Assessment**

To address the limitations of the PSE, a multitude of self-report methods have been developed to measure explicit nAch; however, most, if not all, of these self-report questionnaires diverge from the defining characteristic of nAch namely anticipatory pride. In many cases, questionnaires still lack internal consistency and differential

stability (Fineman, 1977). For example, although the Achievement subscale of the Personality Research Form (Jackson, 1999) has generally revealed adequate internal consistency and differential stability, it is relatively long at 40 items. A shorter version, Form E, is often used because it contains only 16 items; however, the internal consistency of these items has been clearly suboptimal ( $\alpha = .57$ ; p. 50, Jackson).

Low internal consistency may indicate a broad universe of item content that can profitably be reduced to more homogeneous constituent dimensions. Indeed, Jackson, Ahmed, and Heapy (1976) provided early evidence for the multidimensionality of nAch. This work inspired Helmreich & Spence (1978) to develop the Work and Family Orientation Questionnaire (WOFO) as a multidimensional measure of nAch. The authors reported four correlated factors: work, mastery, competitiveness, and personal unconcern. The latter factor was conceptually linked to Horner's (1968; 1972) fear of success, a phenomenon more appropriately categorized as an avoidance-oriented motive. Adams, Priest, and Prince (1985) employed exploratory factor analysis and provided support for the general factor structure of the WOFO. At minimum, these results suggest that it is possible to differentiate related expressions of nAch.

### **Convergent Validity**

Measures of explicit nAch often exhibit small often not statistically significant correlations with the implicit motive scores (Atkinson & Litwin, 1960; Fineman, 1977; Heckhausen, 1989/1991; Heckhausen, Schmalt, & Schneider, 1979/1985; Holmes & Tyler, 1968; McClelland, 1958a; Schultheiss & Brunstein, 2001; Spangler, 1992; Thrash & Elliot, 2002; Weinstein, 1969). The lack of convergent validity between questionnaires



and the PSE has been blamed either on the inadequate psychometric properties of the PSE (Entwisle, 1972) or the incorrect design of questionnaires (Heckhausen et al., 1979/1985; Raven, 1988).

The conceptual distinction between explicit and implicit motives explains the lack of convergence between PSE and self-report measures; however, even self-report questionnaires purporting to assess explicit nAch have historically been unrelated to one another (median  $r = .10$ ; Fineman, 1977). Lack of convergence between self-report measures may be attributed to atheoretical construction of questionnaires. Heckhausen et al. (1979/1985) criticized the majority of nAch test developers for using “intuition” to formulate item content but praised others who designed items to reflect behaviors that corresponded to classic achievement motivation theory. Among the central behaviors captured by nAch questionnaires were “goal setting, risk taking, self-reinforcement after success and failure, conformity, preference for achievement-related activities, persistence, differentiation among various time perspectives for achievement-related behavior, and finally, behavioral effects of finished and unfinished tasks” (p. 29). Expansive item content focused on the consequences of nAch instead of the core characteristic of pride may contribute to the lack of convergence in nAch questionnaires particularly given that the majority of self-report nAch measures are unidimensional. Heckhausen’s praise for using criterion-based indicators of nAch still strays conceptually from the fundamental definition of nAch. Dispositional motives serve a distinct, yet incomplete, role in achievement motivation; therefore, many of these behavioral criteria will be mediated by other constructs (e.g., goals, self-regulatory strategies; Elliot, 1999). Considering that the universe of behavioral criteria is so broad, the internal consistency of

these measures is bound to be limited. Rather than distinguishing which behavioral items are most content-relevant and representative of the nAch domain, nAch conceptualization and measurement should return to its central defining characteristic: anticipatory pride.

### **Need for Achievement as an Emotional Disposition**

The cognitive-motivational-relational theory of emotion centers on the personal significance of the person-environment transaction (i.e., relational meaning) rather than treating transactions as neutral and decontextualized stimuli (Lazarus, 2001). According to Lazarus (1991; 1999), emotions arise through appraisal processes where people perceive or anticipate changes in their environments and believe that consequences, either harmful or beneficial, are likely to result from this relational change. Specific emotions can be defined by the similarity of appraisals, which can be summarized in terms of a core relational theme. The core relational theme for pride involves “enhancement of one’s ego-identity by taking credit for a valued object or achievement, either our own or that of someone or groups with whom we identify” (Lazarus, 1991, p. 271).

The appraisal process includes individuals’ evaluation of the personal relevance of the change, whether the change facilitates or thwarts goal achievement, and classification of the type of ego-involvement. Lazarus’ conceived six types of ego-involvement as broad and abstract commitments individuals can make regarding themselves in relation to the world. The ego-involvement central for experiencing pride is self- and social-esteem. Individuals may experience pride in achievement settings when they appraise change as relevant to their goals, congruent with those goals, and beneficial for enhancing their self- or social-esteem. For pride to be experienced, individuals also

must take credit for the achievement-related outcome. A similar stance has been articulated in cognitive-attribitional models of emotion which contend that individuals experience pride when they attribute achievement to specific internal causes (Lewis, 2000; Weiner, 1985). Another process model of self-conscious emotions contends that pride is experienced when: (a) public and/or private self-representations are activated via attention focused on the self; (b) events are relevant to and congruent with identity goals; and (c) the cause of the event is attributed internally and specifically (Tracy & Robins, 2004a). Recent research by Tracy & Robins (2007) supported two facets of pride that differ in attributions. Whereas authentic pride results from internal, unstable, and controllable attributions (e.g., “I was successful because I gave 100% effort”), hubristic pride results from internal, stable, and uncontrollable attributions (e.g., “I was successful because I am the best”).

With these contemporary perspectives on pride in mind, individual differences in nAch may be reconceptualized as outcome-contingent self-evaluative affect dispositions associated with the beneficial consequences of succeeding which increase the tendency to appraise evaluative situations as opportunities to contribute personally to goal attainment. Importantly, this conceptualization retains McClelland's (McClelland et al., 1953) original characterization of the achievement motive which was defined as anticipated pleasant affect associated with evaluation. High nAch individuals may be described as individuals who are likely to appraise situations where competence is at stake as opportunities to be personally responsible for facilitating esteem enhancement. Individuals may believe they can enhance their esteem in their own minds (i.e., self-esteem) or in the minds of others (i.e., social-esteem). Therefore, nAch can be

conceptualized as a hierarchically-structured emotion disposition. Individuals who believe competence evaluation provides an avenue for self-esteem enhancement are energized by *intrapersonal pride* (IaP). Individuals who believe competence evaluation provides a possibility for social-esteem enhancement are energized by *interpersonal pride* (IeP). IaP may be conceptually linked to authentic pride (Tracy & Robins, 2007) because these individuals anticipate evaluation as an opportunity to feel better about themselves; therefore, they may also feel that the outcome is able to be determined, in part, by their own specific actions (e.g., effort, strategy). Due to their shared appetitive nature and internal attribution patterns, these two forms of nAch that vary in the locus of esteem enhancement are expected to be strongly related due to an overarching general nAch factor.

Although centered on emotional dispositions regarding esteem enhancement, nAch is conceptually distinct from self-esteem or self-worth which Harter (1993) defined as “the level of global regard one has for the self as a person” (p. 88). Unlike self-esteem or self-worth, nAch focuses on self-evaluations that derive specifically from competence strivings and not other sources of self-related information (e.g., affiliative processes). The distinction is important because it suggests that individuals may have high nAch regardless of their level of self-esteem. A moderate association between self-esteem and nAch, particularly IaP, is expected given the conceptual link between motives and self-concept (McClelland et al., 1989).

Scholars frequently characterized nAch as an adaptive motive disposition; however, several theorists suggest that extremely high levels of certain types of pride could be detrimental to optimal functioning. Several scholars have discussed excessive

pride, applying unique labels such as overweening pride (Lazarus, 1991), hubris (Lewis, 1992; Tracy & Robins, 2004a), and alpha pride (Tangney, Wagner, & Gramzow, 1992) to this related construct. The clearest distinction between pride and hubris draws on the specificity of attributions (Lewis & Sullivan, 2005; Tracy & Robins, 2004a).

Achievement-oriented pride results from success attributed internally to a specific behavior (e.g., “I hit the ball well today”). In contrast, hubristic pride results from success attributed internally with a global focus on the self (e.g., “I am the greatest”). As a form of pride, the experience of hubris is pleasant and highly self-reinforcing; however, Lewis and Sullivan (2005) identify three central problems associated with hubris: “(1) it is a transient but addictive emotion, (2) it is unrelated to any specific action and, thus, requires altering goals or reinterpretation of what constitutes success; and (3) it interferes with interpersonal relationships because of its insolent and contemptuous nature” (p. 190-191). Indeed, in the most extreme sense, general nAch may share variance with narcissism (Elliot & Thrash, 2001b; Morf & Rhodewalt, 2001; Roseman & Kaiser, 2001) – a personality disorder defined by the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994) with such symptoms as “exaggerates achievements and talents” and “believes that he or she is ‘special’ and ‘unique’” (p. 661). As noted by Elliot and Thrash (2001b), although narcissists engage in approach-valenced competence strivings, they are energized by extreme appetitive (i.e., nAch) and aversive (i.e., FF) motives (see also Morrison, 1989).

### **Potential Yield for Achievement Motivation Research in Sport**

In the past 25 years, the achievement goal approach has dominated the science and practice of achievement motivation in sport with relatively little consideration of the role of motive dispositions (Duda, 2005; for notable exceptions, see Conroy & Elliot, 2004; Conroy, Elliot et al., 2003). Rather than viewing motives and goals as mutually-exclusive explanatory options, they can be conceived as theoretical complements that enhance understanding of achievement motivation (Elliot, 1997, 1999; Elliot & Church, 1997). Moreover, there may be added value in considering different forms of the approach achievement motive based on the locus of enhanced esteem (i.e., self vs. other). Following is a discussion of specific ways in which such a diversified nAch construct might enrich understanding of achievement motivation processes and products.

#### **Task Choice**

One of the major tenets of classic achievement motivation theory is that high need achievers will seek to maximize pride by choosing tasks that are approximately equivalent in reward and risk (i.e., probability of success and failure). Several laboratory studies provided support for the theory by demonstrating that high need achievers select moderately risky tasks over easy or difficult tasks (Atkinson & Litwin, 1960; Clark, Teevan, & Ricciuti, 1956; Cooper, 1983; McClelland, 1958b). Research in naturalistic environments has found high need achievers to be more likely to enroll in college courses of intermediate difficulty (Isaacson, 1964) and to aspire for moderately difficult

occupations (Morris, 1966). Similar results have been obtained in sport-related research (Roberts, 1974, 1975).

Bifurcating nAch into IaP and IeP may provide further insight into classic hypotheses because it can provide insight into whether individuals seek to maximize pride experienced from self- or social-esteem enhancement. High IeP individuals may rely on the perceptions of others regarding difficulty when choosing tasks. What is important to these individuals may be ensuring that their audience believes that they are performing a task that is moderately difficult. In contrast, high IaP individuals' self-perceptions of intermediate task difficulty may be of sole consequence for task choice. Consequently, high IeP individuals' task choice may be contingent on whether or not the performance is public or private whereas high IaP individuals' task choice should be consistent regardless of social context. Additionally, high IeP individuals may prefer to perform in front of an audience to maximize social-esteem enhancement whereas high IaP individuals are likely unconcerned with the social context surrounding the task.

### **Self-Regulatory Strategies**

Both nAch and FF predict the adoption of performance-approach goals (Conroy, Elliot et al., 2003); therefore, it is important to understand why these orthogonal motives may lead individuals to adopt a common goal. High need achievers embrace the challenge of comparing their performances against others' performances and may adopt performance-approach goals because they eagerly look forward to the possibility of experiencing pleasant affect (specifically pride). Importantly, the experience of pride under normative evaluation conditions may result from praise received from others or

self-affirmations. High IeP individuals are concerned about social evaluation because it presents an opportunity for social-esteem enhancement; thus, these individuals self-regulate to demonstrate competence to others. In contrast, high IaP individuals may be concerned with social evaluation insofar as it presents an opportunity to have their self-esteem enhanced. High IaP individuals may adopt performance-approach goals to demonstrate competence to themselves. Indeed, when high IaP individuals feel they have achieved a certain level of mastery, they may look for other sources of information, such as whether or not they can outperform others. In this sense, although high IaP individuals are more likely to adopt mastery-approach goals, there may be situations where it is also important for high IaP individuals to outperform others to further enhance self-esteem. High IaP individuals who believe they have reached a ceiling of competence compared to their previous performances, may desire to test their competence relative to others.

There are several implications for considering cross-level interactions of motives and goals. The reasons people pursue goals may be as important as the goals that they pursue; hence it is necessary to attend to goal antecedents. Motives are among the more robust stable individual differences linked to goal adoption. According to Elliot and Thrash (2001a), adoption of “the same goal may lead to somewhat different processes and outcomes, depending on its accompanying reason” (p. 148); therefore, it is likely that the consequences (i.e., affect, cognition, behavior) of the self-regulatory strategy (i.e., goal) will vary for individuals as a function of their antecedent motivational profiles.



## **Affective Responses to Feedback**

By attending to nAch dispositions as the reasons underlying performance-approach achievement goal adoption, sport psychology research may be able to tease apart consistently observed null effects between performance-approach goals and affect (for reviews see Biddle, Wang, Kavussanu, & Spray, 2003; Ntoumanis & Biddle, 1999). For instance, a meta-analysis revealed correlations between ego-orientations and both positive and negative affect ranging from  $-.35$  to  $.44$  and  $-.12$  to  $.23$ , respectively (Ntoumanis & Biddle, 1999). Small average effect sizes observed for ego-orientations on positive ( $M = .07$ ) and negative affect ( $M = .02$ ) may be explained by individual differences at the motive level particularly due to the affective foundation of achievement motives. Given that individuals may experience a variety of affective responses to normative competence evaluation, differentiating IaP and IeP expressions of nAch may further understanding of the motivational signatures characteristic of individuals in achievement situations. Individuals who believe competence evaluation is an opportunity for self-esteem enhancement (i.e., high IaP) may experience normative competence success and failure differently than those who are low in this motivational disposition and those who believe competence evaluation affords social-esteem enhancement (i.e., high IeP). Pride may be experienced greater for high IeP than high IaP individuals who outperform others because they likely increased their standing in the eyes of others' which is exactly the consequence they are seeking. For high IeP individuals, normative success and failure are highly relevant given their focus on social-esteem enhancement. In contrast, for those high in IaP, normative success and failure is relevant only insofar as it increases or reduces the probability of self-esteem enhancement.

The nature of feedback provided by coaches or significant others may interact with motives to impact affect. For example, feedback regarding failure to outperform others can produce significant unpleasant affect (e.g., shame) in all individuals; however, high need achievers' unpleasant affect may be alleviated due to their anticipation of pride. High IaP need achievers who experience normative failure may exhibit resilience to intense unpleasant affect by either seeking alternate information (i.e., mastery or absolute standards of reference) or adopting a future orientation. Similarly, successfully outperforming others frequently leads to pride, regardless of motivational orientation; however, high IeP individuals' experience of such pleasant affect may be accentuated because outperforming others likely enhances esteem in the eyes of others. In short, the affective consequences of normative success and failure may vary greatly and nAch could provide insight into these processes provided that the construct is conceptualized and measured precisely via bifurcation into IaP and IeP.

### **Persistence**

Another tenet of classic achievement motivation theory is that high need achievers will persist on tasks longer than low need achievers. Upon discovering that high need achievers remembered more unfinished than finished tasks compared to low need achievers, Atkinson (1953) suggested high need achievers were more persistent and focused on accomplishing uncompleted tasks. In a study conducted by French and Thomas (1958), high need achievers freely spent approximately twice as much time as low need achievers searching for solutions to complex tasks. Feather (1961) found that individuals whose nAch was higher than FF persisted longer on unsolvable tasks that

were labeled as “easy” than those labeled “difficult”; whereas, those whose FF was higher than nAch revealed the opposite pattern. McClelland and Koestner (1992) explained that failure on an “easy” task simply leads to a reassessment of task difficulty as intermediate thus making task accomplishment even more desirable for high need achievers. Several studies have supported the positive relation between nAch and persistence (Brown, 1974; Smith, 1964; Weiner, 1965). We might expect high IaP individuals to persist consistently regardless of whether or not they are observed by others, particularly within the sport context where self-referenced improvement may be more easily observed within and across trials. High IaP athletes may be those who engage in systematic practice behaviors regardless of whether or not anyone is observing them because they are interested in enhancing self-perceptions more than others’ perceptions of them. IeP individuals may require achievement settings to be public to sustain behavior because they seek to enhance their value in the eyes of others.

Distinguishing nAch by loci of esteem enhancement may be valuable due to theoretically divergent correlates expected of each. With its focus on esteem enhancement through self-perceptions, IaP is likely to be associated with a variety of adaptive achievement processes. Individuals who are motivated to approach success because they anticipate experiencing IaP would also expect to demonstrate competence in achievement situations (Elliot & Church, 1997) and to be confident in their abilities to achieve. High IeP individuals, due to their focus on social-esteem enhancement, may vary in their competence expectancies because these expectancies are partially contingent upon others’ expectations. Additionally, drawing from research conducted in academic environments (Elliot & McGregor, 2001), high IaP, but not IeP, athletes may have high

levels of self-determination and may engage in study habits that allow them to critically examine technique and strategy (i.e., deep processing) rather than simply memorize information (e.g., surface processing). Most coaching team sports (e.g., volleyball, basketball, soccer, football), require athletes to not only memorize plays but also critically examine formations and movement patterns quickly to perform effectively.

It is likely that several achievement processes will be predicted differentially by IaP and IeP depending on whether the achievement situation is private or public. Given that IaP individuals may be primed to experience esteem enhancement in the absence or presence of an audience due to their orientation toward self-perceptions, effort and enjoyment is likely to be high regardless of the social context. IeP individuals, on the other hand, may only engage in effortful achievement pursuits when social-esteem can be enhanced. Without the presence of others, effort may be highly variable for high IeP individuals. Similarly, they may only enjoy those pursuits which can be performed in front of others.

## **Performance**

A final proposition of classic achievement motivation theory is that high need achievers will perform better than low need achievers. In an early review, Klinger (1966) reported that approximately half of the published studies of nAch and performance demonstrated a significant relationship between the two. Spangler's (1992) meta-analysis of 105 nAch articles supported a moderate effect for nAch on achievement behavior (i.e., grades, income, laboratory performance, etc.). In experimental manipulations, high need achievers performed better than low need achievers for moderately-difficult tasks

(Atkinson, 1958b; Clark & McClelland, 1956; Karabenick & Youssef, 1968; McClelland et al., 1989). Koestner and McClelland (1990) described two other conditions that appeared to moderate the relationship between nAch and performance: personal responsibility (see also McClelland, 1987) and competence feedback. First, high need achievers who are faced with moderately difficult tasks do not perform as well when extrinsic controls such as time pressure (Schroth, 1988; Wendt, 1955), external incentives (Atkinson, 1958b; Douvan, 1956), or competitive structures are employed (Groszko & Morgenstern, 1974). If causality for success is attributed externally to high nAch individuals, anticipatory pride will be attenuated and they may not expend effort or focus attention, resulting in decreased performance (McClelland, 1987). Second, high need achievers perform better than low need achievers after receiving performance feedback but not after receiving affiliative feedback (French, 1958), and high nAch children benefit more from immediate performance feedback than low nAch children (Bartmann, 1994). It is plausible that high nAch individuals, particularly those high in IaP, may be hypervigilant for competence-related feedback. The attendant external focus may result in more efficient information processing and higher performance when tasks require high levels of interaction with the environment. In contrast, IeP may be associated with increased sensitivity to affiliative cues from others, particularly affirmations which result in pride. This focus on task-irrelevant information could be expected to decrease processing efficiency and thus lower performance.

## Conclusions

Achievement motivation scholarship in sport may be enhanced by bifurcating nAch into two distinct, yet hierarchically-structured constructs because this model affords precise analysis of individual differences in the approach-valenced energization and direction of achievement pursuits that is consistent with classic achievement motivation and current emotion theories. Understanding the reasons why individuals are motivated to approach success may provide further insight into achievement processes and outcomes. Although a theoretical foundation has been laid, the differentiation of nAch and utility of this model requires empirical evaluation. The first priority for future scholarship is the development and psychometric evaluation of an instrument designed to assess IaP and IeP. Upon establishing adequate measurement, substantive questions regarding achievement related affect, cognition, and behavior should be investigated. Given the strength of Elliot's (Elliot & Church, 1997; Elliot, 1997) hierarchical model of achievement motivation and the empirical utility of achievement goal involvement in sport research, sport psychology scholars are encouraged to place an emphasis on examining both achievement motives and achievement goals in sport. Understanding not only how achievement strivings are refined but also how they are energized and oriented in the first place will increase understanding of achievement pursuits in sport.

## **Chapter 3**

### **Measuring the Need for Achievement Using Pride-Based Assessment**

## **Measuring the Need for Achievement Using Pride-Based Assessment**

The need for competence has been described as a fundamental need that motivates human behavior (Deci & Ryan, 2000; Elliot et al., 2002; Harter, 1978; White, 1959). This need is a general form of the need for achievement (nAch) which has been conceptualized as an affectively-based motive disposition that energizes behavior toward achievement situations (Atkinson, 1957). Although classic achievement motivation theory conceived need achievement clearly as an emotional disposition, a significant gap exists between how the construct has been constitutively and operationally defined. The disconnect between conceptualization and measurement may have restricted the development of precise nAch measurement. The purpose of the current research was to augment existing achievement motivation theory with current emotion theory and establish a more conceptually precise nAch measure.

### **Need for Achievement**

Scholarly thinking regarding competence-related motivation can be traced back to Harvard psychologist Henry Murray (1938). In his study of 50 college age men, Murray conceptualized several human needs that drive human behavior. Among these needs he described nAch which motivated individuals:

To accomplish something difficult. To master, manipulate or organize physical objects, human beings, or ideas. To do this as rapidly, and as independently as possible. To overcome obstacles and attain a high standard. To excel one's self. To rival and surpass others. To increase self-regard by the successful exercise of talent (p. 164).



According to Murray, nAch is grounded in pleasurable affective experience. An individual high in nAch “welcomes obstacles (physical or mental), selects the hardest tasks – things that demand great exertion and courage – , in order to experience the elation of mastering them” (p. 91). Murray also described the need for infavoidance which he conceptualized as the motive to avoid “failure, shame, humiliation, ridicule” (p. 81; typically referred to as fear of failure in the subsequent achievement motivation literature). From Murray’s perspective, these achievement motivation constructs are rooted in anticipation of pleasant or unpleasant affects.

In support of Murray’s contentions, Winterbottom (1953) found boys high in nAch were rated higher in experiencing pleasure in success by their teachers than boys low in nAch. David McClelland and John Atkinson and their colleagues (McClelland et al., 1953) further clarified the affective roots of achievement motivation originally proffered by Murray. According to Atkinson (1957; Atkinson & Feather, 1966a), individuals high in nAch are particularly drawn to achievement settings because they anticipate experiencing *pride in accomplishment* whereas individuals high in fear of failure are threatened by these settings because they anticipate experiencing *shame upon failing*. Pride, like shame, has been subsequently characterized by emotion scholars as a self-conscious emotion (Lewis, 1993; Tangney & Fischer, 1995). Although success can stimulate feelings of joy or satisfaction, pride can only be experienced when the self is evaluated as the cause of success (Lazarus, 1991; see also Weiner, 1985). The work of McClelland and Atkinson clearly distinguished pride from joy, satisfaction, or general pleasant affect as the central affective component of nAch, yet pride has largely been neglected in operationalizing the construct.

### **Reconceptualizing Need for Achievement Within Current Emotion Theory**

According to Lazarus' (1991) cognitive-motivational-relational theory of emotion, individuals experience emotions when they perceive or anticipate changes in their environment that they believe will impact their ability to accomplish their goals. Once individuals sense or anticipate relational changes, they appraise how these changes will impact their personal goals. The central appraisal pattern underlying each particular emotion is encapsulated by a core relational theme. The core relational theme for pride, the emotion central to nAch, is "enhancement of one's ego-identity by taking credit for a valued object or achievement, either our own or that of someone or group with whom we identify" (p. 271). Therefore, pride appraisals involve (a) establishing that a perceived relational change is relevant to personal goals, (b) determining that the perceived relational change facilitates achievement of personal goals, (c) reducing the content of the specific goal to enhancement of one's self- or social-esteem, and (d) taking credit for goal achievement.

Pride can be bifurcated into two forms, intrapersonal or interpersonal which reflect enhancement of self- or social-esteem, respectively (Lazarus, 1991). *Intrapersonal pride* (IaP) may be described as the purest form of nAch because it involves appraisals of enhanced self-esteem that are independent of others' evaluations. In essence, when confronted with an achievement task, individuals high in IaP anticipate an opportunity to feel better about themselves. In sport and many other domains (e.g., work, school), achievement is also often evaluated within a social context. *Interpersonal pride* (IeP) involves appraisals that success in achievement situations will lead to enhanced status in others' eyes. Although a multitude of nAch measures have been developed, none were

designed to assess individual differences that would influence the likelihood of pride-related appraisals following success in achievement situations.

### **Development of a New Need for Achievement Measure**

A questionnaire that assesses individuals' beliefs that they will make appraisals characteristic of pride when faced with competence challenge may address psychometric problems with existing measures and enhance the validity and utility of nAch assessment (see Chapter 2). Based on the cognitive-motivational-relational theory of emotion (Lazarus, 1991), items on this measure should (a) place the respondent clearly within the relevant relational context (i.e., context of competence evaluation; "when I am asked to display my skill ..."), (b) describe an explicit pleasant affective consequence that results from either self-enhancement (i.e., IaP) or enhancement in the eyes of others (i.e., IeP), and (c) place responsibility for the outcome on the respondent, thus, establishing credit. The Need Achievement Pride Scale (NAPS; see Appendix) was developed to assess pride beliefs characteristic of nAch. Based on Lazarus' (1991) definition of pride, the scale comprised items written to tap two forms of pride. IaP and IeP items were distinct in that the former explicitly portrayed self-enhancement (e.g., "...increase my view of myself") whereas the latter portrayed other-enhancement (e.g., "...increase others' views of me").<sup>1</sup>

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<sup>1</sup> IaP items contain the term "myself" which may be interpreted as an assessment of anticipatory hubristic pride rather than authentic pride (Tracy & Robins, 2007). Hubristic pride has been negatively associated with self-esteem; therefore, individuals high in hubristic pride may not believe evaluation serves as opportunity to enhance their self-esteem.

## Purpose & Hypotheses

The purpose of this research was to investigate the psychometric properties of responses to the 10-item NAPS. Specifically, the present research had three purposes: (a) to evaluate the fit of theoretically-plausible models (e.g., one factor, two factors [correlated and uncorrelated]), (b) to assess the factorial invariance of the resulting measurement structure in an independent group, and (c) to establish a nomological network for interpreting score meaning (see Cronbach & Meehl, 1955). NAPS scores were hypothesized to be best represented by two correlated factors representing IaP and IeP because each is differentiated by anticipated locus of esteem enhancement.

Given the historical lack of convergence between nAch measures documented by (Fineman, 1977), NAPS scores were hypothesized to demonstrate positive, but small, associations with other nAch measures. More specifically, IaP scores were hypothesized to demonstrate stronger positive relations with WOFO-workmastery than IeP scores because IaP and mastery share the commonality of being self-focused forms of motivation. In contrast, IeP scores were hypothesized to demonstrate stronger positive relations with WOFO-competitiveness.

Behavioral activation (BAS) and inhibition system (BIS) sensitivities are characterized as individual personality differences in approach and avoidance motivation, respectively. BAS reflects a propensity to engage in goal-directed efforts and to experience positive feelings when presented with reward whereas BIS reflects a propensity to experience anxiety and sensitivity to punishment (Carver & White, 1994; Gray, 1990). As a self-attributed assessment of approach-valenced achievement motives, NAPS scores were hypothesized to be positively related to general approach motivational

tendencies and unrelated to general avoidance motivational tendencies as well as fear of failure (i.e., avoidance-valenced achievement motive). NAPS scores were hypothesized to be positively associated with self-esteem, particularly given the conceptual link between self-attributed motives and self-concept (McClelland et al., 1989). The pride experience may function in part to foster self-esteem development (Tracy & Robins, in press). Individuals high in self-esteem likely have experienced pride in their achievement pursuits and may also anticipate future achievement tasks as opportunities to experience pride. This relationship was expected to be strong for IaP given its focus on enhancement of self-esteem. A dispositional motive grounded in pride was expected to share some variance with other similar pleasant emotions; thus, NAPS scores were hypothesized to be positively associated with happiness, state hope, and pride-proneness.

Blatt (2004) described two types of depression: anaclitic and introjective. Anaclitic depression, or dependency, is interpersonal in nature due to foundation in fears of abandonment and neglect. Introjective depression, or self-criticism, concerns self-scrutiny and feelings of having failed to live up to expectations. As an approach-valenced achievement motive defined by anticipatory pride, NAPS scores were expected to exhibit a negative relation with depressive symptoms characteristic of introjective depression. IaP, given its focus on self-esteem and not social-esteem, was expected to exhibit a stronger relationship than IeP with introjective depression. In contrast, because of their shared focus on interpersonal concerns IeP should be more strongly associated with anaclitic depression than IaP.

Previous research (Elliot, 1999; Elliot & Church, 1997; Elliot & McGregor, 2001) has demonstrated positive and null relations between nAch and approach- and avoidance-

achievement goals, respectively; therefore, NAPS scores were expected to replicate these relations. IaP was hypothesized to relate uniquely with mastery-approach achievement goals whereas IeP was expected to relate uniquely with performance-approach achievement goals. NAPS scores were not expected to be confounded by social desirability. Lastly, given that research bifurcating nAch into two forms of pride is in its infancy, no specific relationships between the IaP  $\times$  IeP interaction and outcome variables were hypothesized; however, the interaction term was included to conduct exploratory analyses of NAPS profile meanings.

## Methods

### Participants

Three samples of participants were recruited from a large university. Different samples were used to administer different sets of questionnaires. *Sample A* included recreational athletes ( $N = 244$ ) who participated in this study for extra credit in undergraduate lecture classes. The sample comprised 136 women (56%) and 108 men (44%). Participants ranged in age from 18 to 34 years ( $M = 20.1$ ,  $SD = 1.78$ ), and 98% reported competing in high school athletics or above. *Samples B* and *C* comprised undergraduates enrolled in physical activity classes (racquetball [ $n = 84$ ], squash [ $n = 17$ ], golf [ $n = 60$ ], tennis [ $n = 52$ ], weight training [ $n = 78$ ], fitness walking [ $n = 60$ ]). *Sample B* ( $N = 226$ ) included 65 women (30%), 158 men (70%), and three participants who did not report their sex. Participants ranged in age from 18 to 36 years ( $M = 21.4$ ,  $SD = 1.70$ ) and 92% reported competing in high school athletics or above. *Sample C* ( $N = 125$ )

included 38 women (30%), 85 men (68%), and two participants who did not report their sex. Participants ranged in age from 18 to 41 years ( $M = 21.4$ ,  $SD = 2.48$ ) and 89% reported competing in high school athletics or above. Data from all three samples was combined and randomly split using SPSS 13.0 to form two samples. The *calibration sample* ( $n = 278$ ) provided data for an initial confirmatory factor analyses while the *cross-validation sample* ( $n = 317$ ) provided comparison data for evaluation of invariance across groups.<sup>2</sup>

### **Instrumentation**

The 10-item NAPS presented in the Appendix was developed to provide scores for IaP and IeP. Using a five-point scale ranging from *do not believe at all* (−2) to *believe 100% of the time* (+2), participants rated how often they believed that evaluative situations result in affective arousal due to self- (five items) or other-enhancement (five items). The NAPS was developed especially for the current research. A pilot study was conducted to obtain preliminary data on the 20-item NAPS. College students ( $N = 136$ ) completed the NAPS for extra credit in undergraduate classes. The sample comprised 69 men (51%), 66 women (49%), and one individual who did not report sex. Participants ranged in age from 18 to 29 years ( $M = 20.17$ ,  $SD = 1.92$ ), and 98% reported competing in high school athletics or above. To determine the number of factors underlying NAPS responses, an exploratory factor analysis (EFA) was conducted using a maximum likelihood algorithm. An oblique factor rotation (i.e., promax with  $k = 4$ ) was used in this

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<sup>2</sup> The slight, but readily apparent, disparity in sample size was solely due to random assignment to groups using SPSS 13.0.

EFA to examine the inter-factor correlations. The EFA extracted two factors with eigenvalues greater than 1.0 (Kaiser, 1970) which explained 67.4% of the variance. The first factor (61.3% of the variance) comprised items representing anticipatory pride based on self-enhancement (9 items). The second factor (6.1% of the variance) comprised items representing anticipatory pride based on other-enhancement (11 items). The inter-factor correlation was .79. Two items demonstrated high loadings on both factors (i.e., > .30) and were eliminated from the item pool. The content of each item relative to its factor assignment was reviewed and items with relatively low factor loadings (10 items) were removed. This review of item content reduced the two factors to five items each, a total of 10 items for the entire instrument.

The 16-item achievement subscale of the Personality Research Form E (PRF; Jackson, 1999) provided scores for nAch from a trait perspective. Participants indicated whether each item was *true* or *false* to them. High scores on this scale describe an individual who “aspires to accomplish difficult tasks; maintains high standards and is willing to work toward distant goals; responds positively to competition; willing to put forth effort to attain excellence” (p. 7).

The 23-item Work and Family Orientation Questionnaire (WOFO; Helmreich & Spence, 1978) yielded two scores for nAch from an attitudinal perspective: workmastery and competitiveness. Scores from these scales reflect the desire to work hard and experience challenge, and to succeed in competitive, interpersonal situations, respectively. Participants responded to items on a five-point scale ranging from *strongly disagree* (1) to *strongly agree* (5). Previous research supported a multidimensional structure of scores (Chang, Wong, Teo, & Fam, 1997; Helmreich & Spence, 1978;



Spence & Helmreich, 1983) and a positive relation between workmastery and competitiveness ( $r = .27$ , Elliot & McGregor, 2001).

The Achievement Motive Grid (AMG; Schmalt, 1976, 1999) served as a semi-projective measure of nAch. The AMG included six, potentially achievement-related, pictured situations. Each picture was followed by one filler statement and nine statements reflecting hope for success (i.e., nAch; 3 items), cognitive FF (3 items), and emotional FF (3 items). Participants indicated whether each statement does or does not describe the situation pictured.

The 25-item Performance Failure Appraisal Inventory (PFAI; Conroy, Willow, & Metzler, 2002) provided scores for fear of failure. Participants rated how their beliefs concerning the likelihood of a variety of threatening consequences of failure on a five-point scale ranging from *do not believe at all* (-2) to *believe 100% of the time* (+2). Previous research supported the factorial validity, external validity, and temporal stability of PFAI scores and its items (Conroy, 2001b; Conroy et al., 2002; Conroy & Metzler, 2003, 2004; Conroy, Metzler, & Hofer, 2003).

The 20-item Behavioral Inhibition and Behavioral Activation System Scales (BIS/BAS; Carver & White, 1994) was used to assess appetitive and avoidance motivational systems, respectively. BAS scales measure the pursuit of goals (drive), positive responsiveness to rewards, and tendency to seek fun. BIS scales assess concern and sensitivity regarding the possibility of bad occurrences. Participants responded to items on a four-point scale ranging from *strongly agree* (1) to *strongly disagree* (4). BAS scores have been positively related to extraversion, positive affect, and positive

temperament. BIS scores have been positively related to manifest anxiety, negative affect, and negative temperament, and negatively related to optimism.

The 55-item General Temperament Survey (GTS; Watson & Clark, 1993) provided scores for positive and negative temperament; two scales developed to assess stable individual differences in positive (e.g., joy, interest, enthusiasm, confidence) and negative (e.g., fear, anger, sadness, guilt) affect. Participants indicated whether each item was *true* or *false* to them. GTS scores have achieved acceptable internal consistency and convergent validity.

The 14-item Washington Self-Description Questionnaire (WSDQ; Smoll, Smith, Barnett, & Everett, 1993) served as a measure of general self-esteem. Six items refer to positive self-attributes while eight items are characterized as negative self-evaluations. The current research employed positive self-attribute items only. Participants rated each item from *not like me* (1) to *very much like me* (4). Previous research supported the internal consistency, test-retest reliability, and external validity of WSDQ scores.

The 4-item Subjective Happiness Scale (HS; Lyubomirsky & Lepper, 1999) provided a measure of global subjective happiness. Participants responded to items on a seven-point scale ranging from 1 (*not a very happy person/less happy/not at all*) to 7 (*a very happy person/more happy/a great deal*). Previous research supported the internal consistency, test-retest reliability, and external validity of scores.

The 6-item State Hope Scale (SHS; Snyder et al., 1996) provided scores for agency, pathways, and general state hope. Agency is defined as a “perceived capacity for initiating and maintaining the actions necessary to reach a goal” (p. 321). Pathways refers to an individual’s “perceived ability to generate routes to one’s goals” (p. 321).

Responses to the SHS are made on an eight-point scale ranging from *definitely false* (1) to *definitely true* (8). SHS scores have achieved acceptable internal consistency and have been positively related to state self-esteem and positive affect.

Version 3 of the Test of Self-Conscious Affect (TOSCA-3; Tangney, Dearing, Wagner, & Gramzow, 2000) comprises 11 negative and 5 positive scenarios yielding indices of shame-proneness, guilt-proneness, externalization, detachment/unconcern, alpha pride, and beta pride; the latter two reflect feelings of pride in oneself and one's behavior, respectively. Each scenario is followed by four or five statements. Given the focus of the current research, only the scenarios containing statements related to alpha or beta pride were included. Participants indicated how likely they are to react to each scenario with the stated response on a five-point scale ranging from *not likely* (1) to *very likely* (5).

The 12-item  $2 \times 2$  Achievement Goals Questionnaire for Sport (AGQ-S; Conroy, Elliot et al., 2003) provided scores for mastery-approach, performance-approach, mastery-avoidance, and performance-avoidance achievement goals. Participants were instructed to focus on their thoughts and feelings regarding their physical activity class. Participants rated each item from *not at all true of me* (1) to *very true of me* (7). Previous research supported the structural validity and temporal stability of AGQ-S scores (Conroy, Elliot et al., 2003; Conroy & Elliot, 2004).

The 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977, 1991) provided scores for depressive symptoms experienced by individuals during the previous week. Participants rated the frequency of their behaviors, and affective and interpersonal experiences over the past week using a four-point scale

ranging from *rarely or none of the time (less than 1 day)* (0) to *most or all of the time (5-7 days)* (3). The CES-D appears to be more indicative of an intrapersonal state of depression as it related positively to self-criticism (i.e., introjective depression) but was unrelated to dependency (i.e., anaclitic depression; Blatt, 2004). The internal consistency and test-retest reliability of the CES-D have been adequate in previous research. Santor and colleagues (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995) advocated for using the CES-D over the Beck Depression Inventory (Beck, Shaw, Rush, & Emery, 1979) for research with college students due to its ability to discriminate small individual differences in depressive severity.

The 40-item Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984) provided scores of self-deception, impression management, and overall social desirable responding, the tendency for respondents to present a favorable description of themselves. Self-deception differs from impression management because self-deceptive individuals genuinely have an exaggerated view of themselves whereas impression managing individuals do not. Participants responded to items on a seven-point scale ranging from *not true* (1) to *very true* (7). Extreme responses indicating social desirability (6 or 7 for positively-keyed items, 1 or 2 for negatively-keyed items) received a code of 1 and all other responses received a code of 0. Subscale scores were calculated by summing all extreme codes resulting in a possible range of one to 20 for each subscale. Previous research supported the structural and external validity of scores.

## Procedure

Participants completed questionnaires after being introduced to the purpose of the study, the risks of participating, and their rights. Due to varying time constraints for data collection, different questionnaire batteries were administered to each sample. Sample A completed the WSDQ, AMG, BIS/BAS, NAPS, PFAI, BIDR, WOFO, PRF, and GTS. Sample B completed the SHS, NAPS, PFAI, HS, TOSCA-3, AGQ-S, WSDQ, and CES-D. Sample C completed the WSDQ, PFAI, NAPS, SHS, AGQ-S, HS, WOFO, and PRF. Samples A, B, and C participants needed approximately 35, 25, and 15 minutes, respectively, to complete the questionnaires.

## Data Analysis

*Confirmatory factor analysis.* There was no missing NAPS data in the current study; therefore, the confirmatory factor analyses (CFAs) presented in this study used maximum likelihood estimation with AMOS 5.0 (Arbuckle & Wothke, 1999; Arbuckle, 2003). In all models, items were specified to load on one factor each and factor variances were fixed to 1.0 to establish a metric for each factor. As recommended by Hoyle and Panter (1995), data analyses included absolute and relative fit indices. The  $\chi^2$  statistic, normed fit index (NFI; Bentler & Bonett, 1980), and standardized root mean square residual (SRMR; Bentler, 1995) served as absolute fit indices while the non-normed fit index (NNFI; Tucker & Lewis, 1973), and comparative fit index (CFI; Bentler, 1990) were used as relative fit indices. SRMR values less than .08 indicate good fit (Hu & Bentler, 1999). Values of .90 and .95 indicate acceptable and good fit, respectively, for

the NFI, NNFI, and CFI (Bentler & Bonett, 1980; Hu & Bentler, 1999). Squared multiple correlations ( $R^2$ ) between each item and the latent factor were evaluated to assess the proportion of variance of each indicator accounted for by the underlying factor. Although no formal criteria exist for interpreting these values, squared multiple correlations should be comparable to values reported on similar achievement motive measures (e.g., mean  $R^2 = .45$ ; Conroy et al., 2002).

***Group factorial invariance.*** To rule out the possibility that the model was misspecified through capitalization on chance features of the sample (MacCallum, Roznowski, & Necowitz, 1992), *group factorial invariance* was assessed using Meredith's (1993) hierarchy of increasingly stringent constraints of configural, weak, strong, and strict factorial invariance (FI). *Configural FI models* included equality constraints on the number and pattern of factor loadings across calibration and confirmatory groups. *Weak FI models* (i.e., metric invariance; see also Hofer, Horn, & Eber, 1997; Widaman & Reise, 1997) added equality constraints on factor loadings across groups and evaluates similarity of factor-variable regressions across groups. *Strong FI models* added equality constraints on the mean intercepts across groups which allows for evaluation of mean differences at the factor level, relative to a reference group. The factor mean and variance for the calibration group were fixed to 0 and 1, respectively, to establish a metric for comparing latent variables across groups. Alternative approaches to testing multigroup invariance (e.g., Jöreskog & Sörbom, 1996; MacCallum, Roznowski, Mar, & Reith, 1994) presume that intercepts randomly fluctuate from sample to sample and therefore do not impose equality constraints on these parameters. Several authors (e.g., Bontempo, Hofer, & Lawrence, in press; Hofer, 1999;

Steenkamp & Baumgartner, 1998; Vandenberg, 2002; Vandenberg & Lance, 2000) contend that strong FI is a necessary requirement for establishing measurement invariance which affords further substantive evaluation including equal factor covariances, equal factor variances, and latent mean comparison. *Strict FI models* added equality constraints on item uniquenesses across groups which forces specific and random error equivalence for each item across groups. Following the suggestion of Steenkamp & Baumgartner (1998), if a model achieved strong or strict FI, further equality constraints were sequentially placed on factor covariances and factor variances to evaluate invariance of these parameters across comparable groups. Although both  $\chi^2$  difference tests and relative fit indices were used to evaluate model fit, relative fit indices were emphasized because they are more appropriate for assessing decreases in fit related to factor loading misspecification (Cheung & Rensvold, 2002; Conroy, Metzler et al., 2003).

## **Results**

### **Confirmatory Factor Analysis**

To confirm the structure of NAPS scores, separate CFAs were conducted on each pride scale (Bollen, 2000). Table 3-1 presents fit indices for a priori models of each factor individually. The fit indices for each pride subscale were generally acceptable according to conventional criteria.

Table 3-1: Fit Indices for Confirmatory Factorial Analyses of NAPS Scores (Calibration Sample)

	df	$\chi^2$	SRMR	NFI	NNFI	CFI
Intrapersonal Pride	5	30.80	.04	.96	.93	.96
Interpersonal Pride	5	29.51	.03	.97	.95	.97
Assembled NAPS Models						
Independence	45	1871.39	--	--	--	--
One factor	35	403.23	.11	.78	.74	.80
Two uncorrelated factors	35	230.56	.30	.88	.86	.89
Two correlated factors	34	98.66	.04	.95	.95	.96

The next CFA combined all 10 items to evaluate plausible models of scores for the entire instrument. Table 3-1 summarizes the fit indices for three plausible models: (a) one factor, (b) two uncorrelated factors, and (c) two correlated factors. The third model best reproduced the covariances between items. The inter-factor correlation was .68 in the two correlated factors model. Table 3-2 presents parameter estimates and  $R^2$  estimates for the piecewise and composite CFAs, as well as factor-level descriptive statistics and internal consistency estimates. Parameter estimates and  $R^2$  estimates exhibited consistency across the piecewise and composite CFA models. Moreover,  $R^2$  estimates were largely similar to complementary measures of fear of failure (Conroy et al., 2002). Coefficient alpha estimates for all 10 items and the general nAch factor (calculated using the two factor scores) were .92 and .76, respectively. General nAch scores calculated by averaging the two lower-order factor scores ranged from  $-2.00$  to  $+2.00$  ( $M = 0.80$ ,  $SD = 0.77$ ).



Table 3-2: Descriptive Statistics and Parameter Estimates from Calibration Sample

	<u>Piecewise Models</u>		<u>Composite Model</u>		<i>M</i>	<i>SD</i>	$\alpha$
	$\beta$	$R^2$	$\beta$	$R^2$			
<i>Intrapersonal Pride</i>							
Factor Score	--	--	--	--	0.84	0.79	.88
Item 1	.72	.52	.72	.52	0.90	0.88	--
Item 2	.70	.49	.70	.49	0.98	0.89	--
Item 3	.81	.66	.82	.67	0.81	1.01	--
Item 4	.77	.59	.77	.59	0.73	1.01	--
Item 5	.85	.73	.85	.72	0.78	1.03	--
<i>Interpersonal Pride</i>							
Factor Score	--	--	--	--	0.77	0.91	.92
Item 1	.82	.67	.83	.69	0.76	1.06	--
Item 2	.85	.73	.85	.73	0.85	1.05	--
Item 3	.81	.66	.82	.67	0.77	1.01	--
Item 4	.82	.68	.81	.66	0.71	1.05	--
Item 5	.87	.75	.86	.74	0.75	1.08	--

*Note.* Parameter estimates represent the common metric completely standardized solution. All parameter estimates were statistically significant ( $p < .01$ ). Factor scores (i.e., average item responses for the scale) and standard deviations were calculated for each factor by averaging unit-weighted item responses.

### Group Factorial Invariance

Table 3-3 presents fit indices for invariance models. The two correlated factors model achieved good fit (i.e., relative fit indices  $> .95$ ) for strict FI (equal factor loadings, equal manifest intercepts, equal uniquenesses) plus equal factor variances. Overall, placing increasingly stringent invariance constraints on factor structures did not substantially reduce relative model fit (Cheung & Rensvold, 2002). Indeed, the results provided strong support for both measurement and substantive invariance of the NAPS across comparable groups.

Table 3-3: Fit Indices for Sequential Factorial Invariance Tests on the Full Two-Correlated Factor Model

	df	$\chi^2$	df diff	$\chi^2$ diff	SRMR	NFI	NNFI	CFI
Configural	68	256.84	--	--	.04	.94	.94	.95
Weak	76	267.61	8	10.77	.04	.94	.94	.95
Strong	84	279.02	8	11.41	.04	.93	.95	.95
Strict	94	286.13	10	7.11	.04	.93	.95	.95
Above + equal covariance	95	286.26	1	0.13	.04	.93	.95	.95
Above + equal disturbances	97	288.65	2	2.39	.04	.93	.95	.95

### External Validity

Table 3-4 presents descriptive statistics and reliabilities for each external construct. Table 3-5 displays intercorrelations among all variables. Given the collinearity between NAPS factor scores, similar bivariate correlation patterns between IaP and IeP scales and external measures were expected. To test whether each scale has unique meaning and avoid incorrectly assuming that each scale measures different constructs (i.e., jangle fallacies; Marsh, 1994), simultaneous regression analyses were conducted for each external measure. Each external score was regressed on IaP, IeP, and the IaP  $\times$  IeP interaction. Table 3-6 displays results of these regression models, including standardized regression coefficients (i.e., betas) and structure coefficients. Standardized regression coefficients represent the contribution a predictor variable makes to the variance of an outcome variable controlling for all other predictor variables. Structure coefficients represent relationships between a predictor and the predicted value of an outcome without controlling for variance accounted for by other predictors. To minimize misinterpretation of results of analyses with correlated predictors, Thompson and colleagues (Thompson &

Borrello, 1985; Courville & Thompson, 2001) advocated interpreting standardized regression coefficients and structure coefficients for regression models that reveal significant effect sizes.

Table 3-4: Descriptive Statistics

External Scale	<i>n</i>	<i>α</i>	<i>M</i>	<i>SD</i>	Min	Max
Need Achievement (PRF)	366	.71	10.14	3.20	1	16
Workmastery	367	.75	52.98	6.53	35	68
Competitiveness	367	.70	19.17	3.46	7	25
Hope for Success	244	.73	11.98	3.38	0	18
Positive Temperament	243	.83	19.85	4.95	4	27
Reward Responsive	244	.87	17.99	2.79	5	20
Drive	244	.78	11.54	2.33	5	16
Fun Seeking	244	.78	12.21	2.48	4	16
Behavioral Inhibition	244	.76	20.60	3.71	7	28
Negative Temperament	243	.91	13.35	7.09	0	28
Fear of failure (PFAI)	593	.83	-0.31	0.68	-1.97	1.82
Cognitive fear of failure	244	.79	3.91	3.37	0	18
Emotional fear of failure	244	.68	10.41	3.09	0	18
Self-Esteem	593	.87	19.11	3.66	7	24
Self-Deception	244	.65	5.58	3.19	0	17
Impression Management	244	.74	5.23	3.25	0	16
Social Desirability Total	244	.56	10.81	5.38	1	30
Subjective Happiness	339	.86	5.20	1.13	1	7
Total State Hope	350	.69	38.30	5.37	17	48
State Hope Pathways	350	.67	19.42	2.74	9	24
State Hope Agency	350	.77	18.88	3.38	4	24
Alpha Pride	222	.61	19.93	3.04	11	25
Beta Pride	223	.56	20.78	2.87	11	25
Depression	225	.90	15.43	10.10	0	47
Mastery-Approach Goals	212	.75	17.49	3.67	3	21
Performance-Approach Goals	212	.89	14.84	5.01	3	21
Mastery-Avoidance Goals	212	.85	14.09	4.80	3	21
Performance-Avoidance Goals	212	.81	12.49	5.61	3	21

*Note.* PRF – Personality Research Form; PFAI – Performance Failure Appraisal Inventory.

Table 3-5: Intercorrelations Among Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. Intrapersonal Pride																			
2. Interpersonal Pride	.62**																		
3. Need Achievement (PRF)	.05	.06																	
4. Workmastery	.20**	.11*	.54**																
5. Competitiveness	.31**	.38**	.19**	.27**															
6. Hope for Success	.20**	.18**	.18**	.05	.00														
7. Positive Temperament	.15*	.07	.34**	.43**	.06	.13													
8. Reward Responsiveness	.22**	.14*	.07	.12	.23**	.19**	.11												
9. Drive	.20**	.09	.26**	.32**	.14*	.12	.29**	.40**											
10. Fun Seeking	.16*	.05	.01	.18**	.14*	-.02	.29**	.36**	.31**										
11. Behavioral Inhibition System	-.08	.05	.02	-.09	.14*	.12	-.17**	.25**	.03	-.09									
12. Negative Temperament	-.06	.12	-.02	-.16*	.19**	.07	-.22**	.14*	.05	-.11	.59**								
13. Fear of failure (PFAI)	-.02	.13**	-.06	-.14**	.14**	.19**	-.10	.14*	.01	-.07	.50**	.49**							
14. Cognitive Fear of Failure	-.05	.07	-.10	-.10	.08	-.02	-.09	-.12	-.11	-.10	.16*	.26**	.22**						
15. Emotional Fear of Failure	.03	.08	.02	-.02	.05	.20**	-.02	.03	.08	-.07	.22**	.19**	.24**	.38**					
16. Self-Esteem	.32**	.16**	.11*	.22**	.16**	-.08	.33**	.13*	.25**	.23**	-.30**	-.37**	-.35**	-.21**	-.19**				
17. Self Deception	.02	-.17**	.08	.32**	-.12	-.09	.24**	.00	.19**	.10	-.48**	-.46**	-.42**	-.19**	-.20**	.45**			
18. Impression Management	-.12	-.20**	.29**	.37**	-.05	-.02	.14*	.10	.08	-.03	-.11	-.26**	-.25**	-.16*	-.11	.12	.39**		
19. Social Desirability	-.06	-.22**	.22**	.41**	-.10	-.06	.23**	.06	.16*	.04	-.35**	-.44**	-.40**	-.21**	-.19**	.35**	.83**	.84**	
	1	2	3	4	5	13	16	20	21	22	23	24	25	26	27	28	29	30	
20. Happiness	.19**	.16**	.20*	.32**	.16	-.35**	.58**												
21. State Hope	.21**	.19**	.39**	.42**	.21*	-.30**	.59**	.49**											
22. State Hope - Pathways	.28**	.20**	.35**	.40**	.12	-.25**	.50**	.39**	.85**										
23. State Hope - Agency	.12*	.15**	.35**	.35**	.24**	-.28**	.52**	.46**	.90**	.53**									
24. Alpha Pride	.28**	.28**				-.01	.28**	.20**	.22**	.20**	.18**								
25. Beta Pride	.26**	.25**				.03	.25**	.15*	.29**	.25**	.25**	.76**							
26. Depression	-.23**	-.04				.42**	-.52**	-.55**	-.43**	-.34**	-.40**	-.12	-.07						
27. Mastery Approach Goal	.24**	.24**	.32**	.38**	.53**	-.05	.17**	.22**	.26**	.16**	.27**	.11	.15*	-.24**					
28. Performance Approach Goal	.32**	.48**	.21*	.18*	.76**	.16**	.15**	.06	.12*	.06	.14*	.16*	.18**	.00	.52**				
29. Mastery Avoidance Goal	.06	.19**	.08	.01	.31**	.25**	-.11*	-.10	-.03	-.04	-.02	.02	.14*	.19**	.44**	.43**			
30. Performance Avoidance Goal	.04	.19**	.09	-.05	.29**	.29**	-.14**	-.09	-.11*	-.09	-.10	.20**	.17**	.17*	.11*	.41**	.33**		

\*\*  $p < .01$ , \*  $p < .05$

Table 3-6: Regression Analysis between NAPS Scores and External Measures

External Scale	Intrapersonal Pride		Interpersonal Pride		Interaction		$R^2$
	$\beta$	$S$	$\beta$	$S$	$\beta$	$S$	
Need Achievement (PRF)	.04	.66**	.05	.75**	.05	.39**	.01
Workmastery	.22**	.90**	.00	.52**	.10	.21**	.05**
Competitiveness	.15*	.76**	.31**	.93**	.11	.94**	.16**
Hope for Success	.14	.93**	.10	.82**	-.00	-.24**	.05*
Positive Temperament	.18	.90**	-.02	.39**	.07	.23**	.03
Reward Responsiveness	.23**	.94**	.02	.57**	.08	.13*	.06**
Drive	.21*	.99**	-.03	.45**	-.00	-.22**	.04*
Fun Seeking	.21*	.82**	-.06	.24**	.10	.33**	.04*
Behavioral Inhibition	-.15	-.57**	.13	.37**	-.01	-.01	.02
Negative Temperament	-.17	-.29**	.22*	.63**	.04	.20**	.04*
Fear of failure (PFAI)	-.20**	-.07	.22**	.55**	-.17**	-.65**	.06**
Cognitive fear of failure	-.12	-.37**	.14	.57**	-.01	.01	.02
Emotional fear of failure	-.02	.32**	.08	.70**	-.08	-.78**	.01
Self-Esteem	.37**	.95**	-.05	.48**	.10	-.35**	.11**
Self-Deception	.20**	.08	-.26**	-.64**	.16*	.57**	.08**
Impression Management	-.01	-.58**	-.18*	-.92**	.08	.52**	.05*
Social Desirability Total	.11	-.23**	-.26**	-.81**	.15*	.58**	.08**
Subjective Happiness	.19*	.89**	.06	.73**	.09	.06	.05**
Total State Hope	.20	.66**	.15	.66**	.25**	.39**	.11**
State Hope Pathways	.30**	.76**	.06	.57**	.23**	.32**	.11**
State Hope Agency	.09	.53**	.20	.70**	.22**	.44**	.08**
Alpha Pride	.15	.89**	.19	.91**	-.05	-.45**	.10**
Beta Pride	.16	.92**	.15	.89**	-.03	-.40**	.08**
Depression	-.34**	-.84**	.19	-.14*	.03	.39**	.07**
Mastery-Approach Goals	.21*	.98**	.08	.82**	.01	-.34**	.07**
Performance-Approach Goals	.06	.75**	.40**	.99**	-.01	-.37**	.20**
Mastery-Avoidance Goals	-.26*	-.11	.32**	.65**	-.05	-.23**	.06**
Performance-Avoidance Goals	-.19	.03	.23*	.67**	-.10	-.52**	.04*

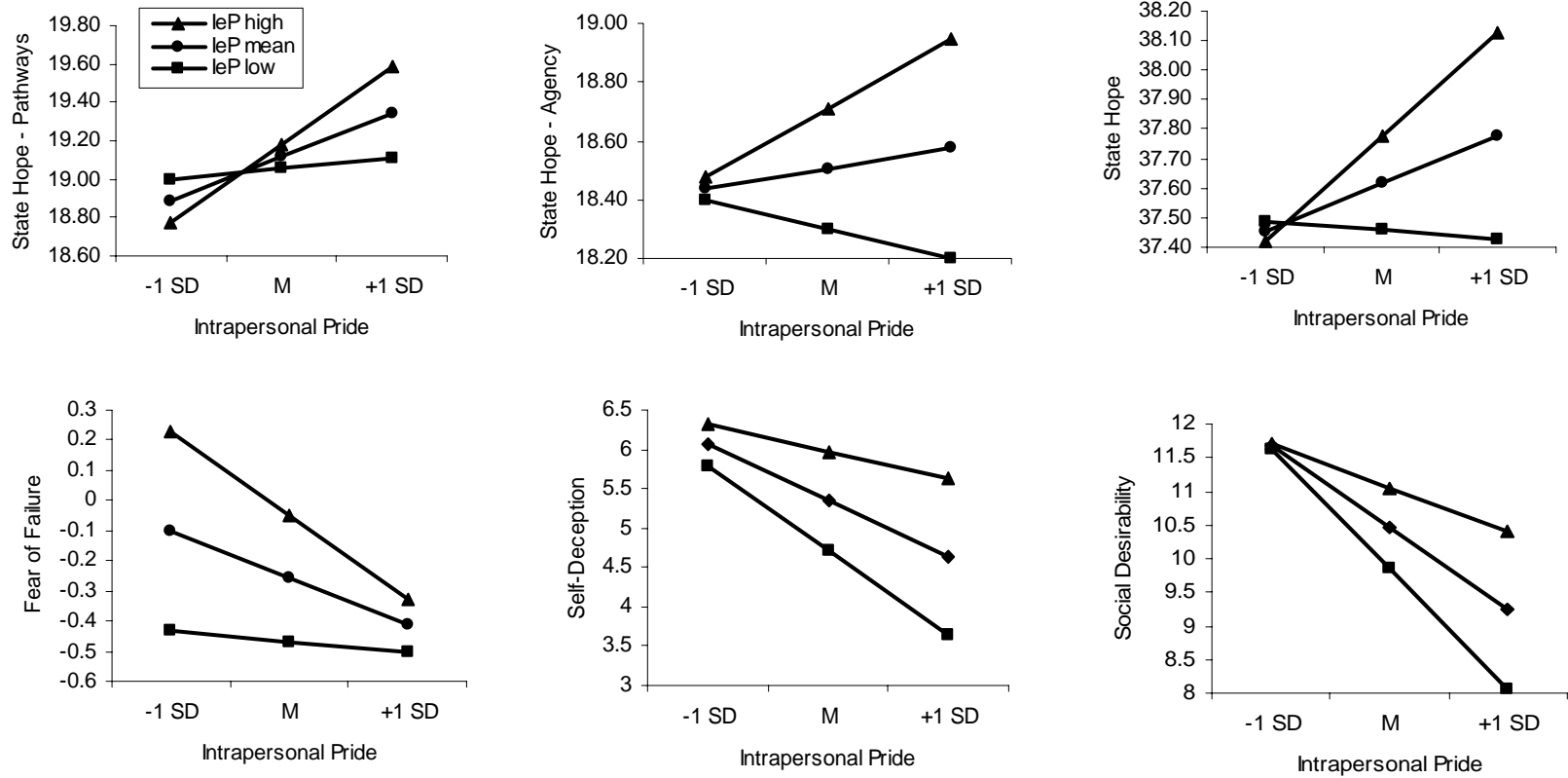
*Note.* PRF – Personality Research Form; PFAI – Performance Failure Appraisal Inventory. To guard against Type I errors, within model Bonferroni adjustments were made. Results of a secondary set of hierarchical regression analyses on a subset of the data revealed similar effects for IaP, IeP, and IaP  $\times$  IeP on external constructs when controlling self-deception and impression management.

\*\*  $p < .01$ , \*  $p < .05$

Regression results revealed similar and unique relationships between pride beliefs and external measures. Structure coefficients revealed that high IaP and IeP were each associated with (a) high levels of nAch (WOFO and AMG), reward responsiveness, drive, fun seeking, self-esteem, subjective happiness, state hope, alpha and beta pride, mastery- and performance-approach achievement goals, and (b) low levels of depression. Beta weights revealed unique positive relations between IaP and nAch (WOFO), reward responsiveness, drive, fun seeking, self-esteem, state hope pathways, mastery-approach achievement goals, and unique negative relations between IaP and fear of failure, mastery-avoidance achievement goals, and depression. In contrast, when controlling for IaP, IeP positively predicted negative affectivity, fear of failure, as well as performance-approach, mastery-avoidance, and performance-avoidance achievement goals. The relation between IeP and FF was a product of suppression by IeP because the bivariate relation was not statistically significant.

The  $IaP \times IeP$  interaction significantly predicted total state hope, state hope pathways, state hope agency, fear of failure, self-deception, and social desirability. Figure **3-1** graphically displays predicted values for each of these variables as a function of varying levels of IaP and IeP. High total state hope, state hope pathways, and state hope agency were characterized by high IaP and high IeP. Low state hope pathways and high fear of failure were characterized by low IaP and high IeP. Low self-deception and social desirability were characterized by high IaP and low IeP.

Figure 3-1: Pathways, agency, total state hope, fear of failure, self-deception, and social desirability as a function of intrapersonal and interpersonal pride.



## **Discussion**

The present results provided evidence for the construct validity of scores from items developed to measure two beliefs about esteem enhancement in achievement situations. One of these beliefs represents a stable individual difference that influences an individual's likelihood of experiencing intrapersonal pride that theoretically characterizes nAch. The resulting factor structure converged with a cognitive-motivational-relational perspective of pride and demonstrated substantial consistency across comparison groups. The structure of NAPS scores was invariant across different groups given that relative fit indices did not decrease greatly following any single set of constraints. Regression analyses exposed similar associations and distinct predictive patterns between each pride subscale and external psychological constructs. As hypothesized, both IaP and IeP demonstrated positive relationships with existing measures of nAch, appetitive motivational systems, self-esteem, pleasant affect, and approach achievement goals, as well as negative relationships with depression. Standardized regression coefficients distinguished the contribution of IaP and IeP to variance of external constructs.

### **Intrapersonal Pride**

The IaP subscale measured individuals' beliefs that situations where competence is at stake are opportunities to enhance self-perceptions. As expected, IaP was positively associated with nAch, as measured by the WOFO, exhibiting its strongest relationship with mastery. Although individuals who are high in anticipating self-esteem enhancement



when confronted with achievement situations tend to prefer to work hard and want to succeed in competitive situations, they particularly desire difficult and challenging tasks. This finding may indicate that IaP is the purest form of the nAch motive because individuals may be more self-focused in their competence pursuits. IaP was also positively associated with general BAS sensitivity but unrelated to BIS sensitivity. IaP can be described as a specific representation of the general appetitive motivational system that is sensitive to activation when competence is at stake.

IaP also demonstrated a stronger association with indicators of well-being than IeP as evidenced by its exclusive contribution to variance in self-esteem, happiness, and depression. The positive association between IaP and self-esteem points toward the self-perpetuating nature of IaP. When individuals high in IaP achieve success, they likely experience pride, specifically self-esteem enhancement, which reinforces their original motive. IaP orients individuals away from past-oriented, unpleasant affect and toward future-oriented, pleasant affect including pride and happiness. Rather than engage in self-scrutiny and self-criticism that characterizes depression (Blatt, 2004), high IaP individuals may be able to evade potential aversive consequences of failure such as lingering unpleasant affect and hostile cognitions and reorient toward future opportunities for self-enhancement.

The approach-valenced achievement motive has been referred to as hope for success by some scholars (Heckhausen et al., 1979/1985). IaP was moderately associated with one form of state hope, pathways, but unrelated to agency. Individuals who believe that achievement situations will lead them to self-enhancement appear to expect that they have more strategies available for achieving their goals despite not necessarily expecting

that they can be successful in achieving their goals (Snyder et al., 1991). This finding may reflect the fact that individuals high in IaP appreciate that situations where competence is at stake provide opportunities for success but also acknowledge a risk of failure. These individuals may not assume that success is inevitable but they are confident that if they fail, they can generate alternate solutions to achieve goals. Moreover, given that high IaP individuals may be able to generate internal rewards, they may be assured that a reward will exist when they succeed; thus, they can turn their focus to developing strategies or problem solving. Alternately, these individuals may find satisfaction simply in the pursuit of success because they tend to be oriented toward mastery.

Consistent with previous results which support the hierarchical model of achievement motivation (Elliot, 1999; Elliot & Church, 1997; Elliot & McGregor, 2001), IaP exhibited a positive relationship with mastery-approach achievement goals. Interestingly, these individuals are also unlikely to adopt mastery-avoidance achievement goals. Although IaP, as an approach-valenced form of competence motivation, was expected to be unrelated to avoidance achievement goals, this result suggests that individuals high in IaP generally do not focus on avoiding incompetence relative to previous performances. Mastery-avoidance goals may be incompatible with IaP because of distinct differences in focus of achievement strivings. Individuals who adopt mastery-avoidance goals are interested only in maintaining, not improving upon, previous levels of performance. It is unlikely that achieving mastery-avoidance goals would fulfill the underlying desire to enhance self-esteem for high IaP individuals. Indeed, high IaP individuals, given their orientation toward self-esteem enhancement, have decreased

interest in simply maintaining performance levels as they strive for ongoing improvement.

### **Interpersonal Pride**

The IeP subscale measured individuals' beliefs that situations where competence is at stake are opportunities to enhance others' evaluations of them. As expected, IeP was positively associated with the WOFO competitiveness scale. High IeP individuals desire success in competitive, interpersonal situations, possibly as a direct means to enhance their social-esteem. IeP also demonstrated a positive relationship with performance-approach achievement goals and a null relationship with mastery-approach goals. High IeP individuals are concerned with increasing their value in the eyes of others and the most obvious way to do this may be to outperform others; outperforming oneself may not necessarily be a public accomplishment. In contrast to expectations, IeP exhibited a positive relationship with negative temperament and fear of failure as well as performance- and mastery-avoidance achievement goals. The commonality between IeP and both general negative affect and fear of failure could be individuals' focus on other people reactions to their performances. Although high IeP individuals acknowledge the potential external rewards of success, they also recognize the external consequences of failure. High IeP individuals may see achievement situations as carrying both the possibility to experience pride resulting from others' praise upon success and the possibility to experience shame resulting from others' criticism upon failure.

Given the current data, IeP is not exclusively grounded in appetitive motivation and high IeP individuals may actually employ avoidance strategies to attain social-

enhancement. The positive relationship between IeP and avoidance motives and self-regulation indicates that the construct does not meet the criteria for being a motive. McClelland (McClelland et al., 1953) clearly defined motives in terms of approach and avoidance. A motive should provide both energy as well as direction either toward or away from an end state. IeP may energize individuals for action; however, it does not provide individuals clear direction for behavior given that the end state is not precisely defined. High IeP individuals appear to be oriented toward the desirable possibility of experiencing pride upon succeeding *and* the undesirable possibility of experiencing shame upon failing. The result may be that these individuals are disoriented in terms of directing behavior which violates the core definition of a motive.

NAPS scores contributed only 11% and 5% of the variance in nAch as measured by the WOFO and AMG, respectively, and failed to predict nAch scores as measured by the PRF. These results are not surprising given that nAch questionnaires have frequently failed to converge (Fineman, 1977). The NAPS differs conceptually from the WOFO and PRF in that it was designed to maintain proximity to the definition of nAch by assessing beliefs regarding experiencing pride in competence pursuits. In contrast, items on the WOFO and PRF draw from the expanse of achievement attitudes and behaviors conceptualized from classic achievement motivation theory (Heckhausen et al., 1979/1985). Although the AMG does assess pride, it differs from the NAPS in two significant aspects. First, it is a semi-projective tool theorized to assess both implicit and self-attributed aspects of nAch (Schmalt, 1999), whereas the NAPS is a self-report method that measures self-attributed nAch. Second, the AMG does not distinguish forms

of nAch. Despite these conceptual differences, NAPS scores did contribute significantly to the variance in two of three existing nAch measures.

Examination of the correlations between achievement motive measures provided insight into the utility of IaP scores in achievement motivation scholarship. With very few exceptions, the pattern of relationships between achievement motives and external constructs was consistent. Whereas PRF and WOFO – workmastery scores shared variance with social desirable responding, IaP scores did not. Compared to other measures, IaP also demonstrated a moderate positive relationship with self-esteem. WOFO – competitiveness demonstrated similar associations with aversive external constructs as IaP. Moreover, this factor exhibited a very strong positive relationship with performance-approach achievement goals ( $r = .76$ ). The present evidence suggests that neither IaP nor WOFO – competitiveness scores meet the criteria of being a motive that orients individuals toward or away from an end state.

The IaP scale may be beneficial for sport psychology scholarship focused on motivation because it was designed to assess the nAch motive as classically conceived. Unlike existing measures of self-attributed nAch, the IaP scale assesses individual differences in cognitive-affective schemas that energize and orient individuals toward the desirable possibility that could result from being evaluated. Individuals who score high on the IaP scale are energized to approach success because they anticipate competence evaluation as an opportunity to experience pride in the form of self-esteem enhancement. Overall, the present results provided partial support for the construct validity of NAPS scores. The two-factor structure of NAPS scores converged with a cognitive-motivational-relational theory regarding pride (Lazarus, 1991). Only IaP scores exhibited

a nomological network consistent with an appetitive achievement motive. It can be concluded that locus-of-esteem enhancement is important when assessing self-attributed nAch because anticipated pride that defines nAch derives from self-, rather than social-esteem while succeeding. Given its link with contemporary emotion (Lazarus) and achievement motivation theories (Elliot, 1997), the IaP scale of the NAPS appears to advance assessment of the self-attributed achievement motive.

## **Chapter 4**

### **Person and Situation Factors Associated with Self-Conscious Affect and Affective Changes During a Competence Pursuit**

### **Person and Situation Factors Associated with Self-Conscious Affect and Affective Changes During a Competence Pursuit**

Pride and shame are bonded as self-evaluative affective responses to competence and incompetence; however, the situational consequences of these emotions diverge. Pride has been linked with adaptive learning strategies, self-regulation of learning, achievement, and low levels of irrelevant thinking whereas shame has demonstrated precisely the opposite relationships (Pekrun et al., 2004; Niedenthal, Tangney, & Gavanski, 1994). Pride also increases interpersonal interactions through achievement disclosure to others, yet shame involves interpersonal isolation (Mascolo & Fischer, 1995; Barrett, 1995; Lewis, Alessandri, & Sullivan, 1992; Stipek, Recchia, & McClintic, 1992). As a pleasant emotion, pride also may allow individuals to expand and/or shift attentional resources appropriately (Carver, 2003); however, shame is psychologically restrictive and can have detrimental physiological effects (Dickerson, Gruenewald, & Kemeny, 2004; Dickerson, Kemeny, Aziz, Kim, & Fahey, 2004; Lewis & Ramsay, 2002; Gruenewald, Kemeny, Aziz, & Fahey, 2004). Given the sharp disparity in consequences between pride and shame, scholars and practitioners could benefit from understanding person and situation factors associated with affect and changes in affect during a competence pursuit.

Contemporary emotion (Lazarus, 1991; Tangney & Fischer, 1995), cognitive-attribitional (Lewis, 1993; Tracy & Robins, 2004a), and classic achievement motivation (Atkinson, 1957) theories point toward situational and individual difference factors that may moderate pride and shame fluctuations. From a situational perspective, pride and shame fluctuate in response to perceived goal achievement or nonattainment that is attributed to the self (Lazarus). From an individual difference perspective, motives



reflecting dispositions to anticipate pride (or shame) following success (or failure) may moderate situational changes in pride or shame (Atkinson). These achievement motives have been described as the need for achievement (i.e., motive to approach success) and the fear of failure (i.e., motive to avoid failure). Whereas the influence of situational performance feedback on global affective valence is well-established (Nummenmaa & Niemi, 2004), little is known about specific effects of such feedback on pride and shame fluctuations. In a naturalistic study of college students' affective responses to exam performance, FF was positively associated with shame levels after receiving results of a midterm examination (McGregor & Elliot, 2005). In a follow-up study, performance feedback was experimentally manipulated in a laboratory task and this finding replicated. Aside from this exception, little research has examined how individual differences in achievement motive dispositions influence variability in pride and shame, either as main effects or as moderators of situational performance feedback. The present study examined the main and interactive effects of individual differences in achievement motives and experimentally-manipulated performance feedback on pride and shame fluctuations during a motor task.

### **Situational Predictors of Pride and Shame Responses**

According to the cognitive-motivational-relational theory of emotion, individuals experience affective responses when they perceive or anticipate changes to the person-environment relationship that they interpret as being congruent or incongruent with their goal pursuits (Lazarus, 1991). At a molar level, a unique core relational theme characterizes the appraisal process associated with every emotion. For *pride*, the core

relational theme is “enhancement of one’s ego-identity by taking credit for a valued object or achievement, either our own or that of someone or group with whom we identify” (p. 271). Pride appraisals involve (a) perceiving a personally-relevant relational change, (b) determining that the perceived relational change facilitates/facilitated goal attainment, (c) identifying self- or social-esteem enhancement as the goal that is at stake in the transaction, and (d) ascribing credit to oneself for goal achievement (Lazarus). Recent cognitive-attributional theories of pride (Tracy & Robins, in press) identified two forms of pride, authentic and hubristic, which differ in terms of permanence of the cause (i.e., stability) as well as the extent to which the cause can be altered (i.e., controllability). Upon succeeding, authentic pride is theorized to be experienced if success is attributed to internal, unstable, and controllable sources; however, hubristic pride will be experienced if success is attributed to internal, stable, and uncontrollable sources.

In contrast, the core relational theme for *shame* involves a “failure to live up to an ego-ideal” (p. 241). Shame appraisals involve (a) perceiving a personally-relevant relational change, (b) determining that the perceived relational change harmed goal attainment, (c) identifying living up to an ego-ideal as the goal that is at stake in the transaction, and (d) ascribing blame to oneself for goal failure. Cognitive-attributional theories agree that shame is experienced when negative events are attributed to internal causes; however, shame is also characterized by stable and uncontrollable attributions (Tracy & Robins, 2006). From this perspective, failure causes shame in individuals if they attribute blame to the self, and perceive the cause of failure to be relatively permanent and unable to be changed.

Many studies have examined the direct effects of success and failure on affect (Nummenmaa & Niemi, 2004). Some of these have assessed pride and shame specifically; however, these studies often collapsed pride- and shame-related responses into a single indicator of general self-evaluative emotions. For instance, Brown and Dutton (1995; see also Dutton & Brown, 1997) examined the effect of success and failure on feelings of self-worth by combining responses to indicators of pride and shame into a single self-related affective variable. College students who completed an easy task (i.e., success condition) experienced higher feelings of self-worth (i.e., high pride and low shame) than those who completed a difficult task (i.e., failure condition).

Another line of scholarship investigated pride and shame responses to success and failure in children (Heckhausen, 1988; Heckhausen, 1987a, 1987b, 1984; Belsky, Domitrovich, & Crnic, 1997; Lewis et al., 1992). In the Heckhausen studies, children between 2 and 5 years old competed against an adult experimenter on a tower building task. In general, results revealed children who succeeded demonstrated pride in that they “raise their eyes from their own work and look triumphantly at the loser. The body stretches, the hands are often thrown high. The self, as it were, appears enhanced and becomes the central point in a widened psychological field of attention” (Heckhausen, 1984, p. 2). In contrast, when children failed they experienced shame as evidenced by the following observable reactions: “the body collapses, is bent down, the head tilted to the side, the eyes and hands do not stray from one’s own work; the psychological field narrows” (p. 2). Both pride and shame are readily evident in children’s reactions to success and failure; however, pride has been found to be displayed earlier than shame (as early as 20 months old for pride and 30 months old for shame, Heckhausen, 1988;

Geppert, 1986). Stipek and colleagues (Stipek et al., 1992, Study 3) found children (aged 24-60 months) paired against a same-age competitor on a ball-stacking task who won were more likely to react with a smile and an open posture than children who finished the task but did not win the race. Children who lost engaged in more avoidant reactions such as gaze aversion, closed posture, and frowning than did winning children. These findings suggest that early in life, succeeding against a normative standard evinced greater pride responses than task mastery. The present study investigated the hypothesis that success and failure produce pride and shame responses in young adults, respectively.

While performing novel tasks in real-world environments, individuals frequently receive multiple doses of feedback regarding goal achievement or nonattainment. Coaches, teachers, and parents communicate success and/or failure feedback to provide individuals information from which adjustments can be made and learning can occur. The effects of single feedback doses on pride/shame have been established but the effects of repeated feedback doses on affective changes remain to be established. A positive asymptotic trajectory seems to be most likely because affective states have upper limits that would be breached by simple linear trajectories. In other words, initial feedback should perturb the affective system more than follow-up feedback of the same nature. This study tested the fit of no change, linear change, and natural logarithmic change (similar to the hypothesized asymptotic growth hypothesis) models of pride/shame in response to repeated doses of feedback regarding performance on a novel task.

### **Individual Differences as Predictors of Pride and Shame Responses**

Pride and shame responses may also be impacted by enduring individual differences related to achievement. Anticipation of pleasant or unpleasant affects formed the foundation of competence-related motive dispositions (Murray, 1938; McClelland et al., 1953; see also White, 1959). Atkinson (1957) was the first to explicitly link specific emotions to achievement motives defining need achievement (nAch) as “the capacity to feel pride in accomplishment” and fear of failure (FF) as “the capacity or propensity to experience shame upon failure” (p. 360). Recent scholarship utilized Lazarus’ emotion theory to constitutively and operationally define nAch (see Chapters 2 and 3, respectively) and FF (Conroy, 2001b; Conroy et al., 2002; Conroy, Poczwardowski, & Henschen, 2001). The nAch can be conceptualized as *intrapersonal pride* (IaP) which involves the belief that evaluative situations are opportunities to experience enhanced self-esteem. Individuals high in IaP perceive competence evaluation as an opportunity to feel better about themselves. Characterization of nAch as a cognitive-affective variable affords a theoretically precise conceptualization of nAch that may be more beneficial than existing attitudinal nAch variables (i.e., workmastery; Helmreich & Spence, 1978) for predicting affective outcomes.

The consequences of nAch and FF have been documented for decades. In general, nAch has been associated with adaptive consequences including preference for moderate difficulty, persistence, future orientation, desire for information, positive and stable self-concept, social acceptance, physical health, and achievement (see McClelland & Koestner, 1992). In contrast, FF has been linked to a variety of maladaptive consequences including decreased effort, persistence, well-being, performance, self-esteem, and

increased competitive anxiety, drug use in sport, and sport dropout (see Conroy, 2001a; Birney et al., 1969; Atkinson & Feather, 1966b; Elliot & Sheldon, 1997).

With a few exceptions, research addressing the relationship between nAch and affect has been sparse. Zurbriggen and Sturman (2002) argued that the emotions linked to motives are specific; therefore, the affective responses associated with needs for achievement, power, and intimacy (i.e., affiliation) should be unique. Results of their descriptive study revealed that high nAch college students, operationalized as those who visualized achievement success, reported high levels of interest, surprise, happiness, excitement, and focus as well as low levels of anger, disgust, sadness, fear, and confusion. Empirical work demonstrating a precise link between nAch and feelings of pride or shame during competence pursuits has been limited. Using an experience sampling method daily over a 60-day period, Woike (1995) found college students' implicit nAch, as measured by the Picture Story Exercise (PSE), to be associated with feelings of personal efficacy and accomplishment; however, specific emotions were not coded. When college women wrote stories regarding recalled emotional experiences including happiness, pride, relief, anger, fear, and sadness, 94% of agentic women (i.e., high in nAch and need for power and low in intimacy as assessed by the PSE) recalled agentic pride memories whereas 34% of communal women (i.e., low in agency and high in intimacy) recalled communal pride memories (Woike, Gershkovich, Piorkowski, & Polo, 1999). These findings suggest that implicit nAch may be associated with greater levels of pride in general. The present study investigated the hypothesis that the self-attributed appetitive achievement motive is associated with generally higher levels of pride.

## **Person × Situation Interactions as Predictors of Pride and Shame Responses**

Affective responses to success and failure may vary for individuals with different achievement motive dispositions; however, this issue has received limited attention. McGregor and Elliot (2005) found FF to moderate links between feedback and post-feedback shame levels (after controlling for dispositional shame). FF positively predicted post-task shame in the failure condition but not the success condition. These results provided evidence that FF moderates shame following failure feedback. The present study extended previous work by investigating the hypothesis that both nAch and FF moderate the effects of performance feedback on changes in state pride and shame, respectively.

### **Purpose & Hypotheses**

The purpose of this research was to investigate affective responses to normative success and failure feedback. This experiment had three specific purposes: (a) to characterize the form and rate of pride/shame change following normative success/failure feedback, (b) to test whether normative success/failure feedback predicts pride/shame change, and (c) to assess whether achievement motives predict baseline levels of pride/shame, or moderate pride/shame responses to normative success and failure feedback, respectively.

Participants were expected to experience feedback-contingent changes in affect (i.e., success feedback will increase pride, failure feedback will increase shame). In contrast to a linear change model for pride/shame, initial feedback was expected to result

in affective “shock” characterized by a steep change in affect with more gradual affective change following subsequent feedback. Existing theory and research regarding affective response to success and failure led to the hypothesis that success feedback will result in increased pride whereas failure feedback will result in increased shame.

High IaP individuals were expected to exhibit high baseline levels of pride even after controlling for workmastery (Helmreich & Spence, 1978), an alternate operationalization of nAch based on attitudes toward achievement that does not directly assess cognitive schemas associated with pride (see Chapter 3). Individuals high in FF were expected to demonstrate high baseline levels of shame. Furthermore, these motive dispositions were expected to moderate affective responses to feedback. IaP was expected to accentuate pride responses to success. High FF was expected to accentuate shame responses to failure. Finally, motive dispositions may interact to influence affective responses to performance feedback. For example, success feedback may increase pride more for individuals with a high IaP/low FF profile than for individuals with a low IaP/high FF profile. Thus, exploratory analyses of two-way and three-way interactions between motives and feedback were conducted to examine this possibility.

## **Methods**

### **Participants**

Students ( $N = 187$ ) at a large university participated in the present study. As incentive for participation, students were offered extra credit in their respective classes and an opportunity to win monetary compensation based on their performance relative to



others completing the study (i.e., \$50, \$40, \$30, \$20, and \$10 for first, second, third, fourth, and fifth place, respectively). Participants ( $n = 19$ ) who reported suspicions about the experimental procedures in the funneled debriefing were excluded prior to data analyses. The final sample ( $N = 168$ ) comprised 102 women (61%) and 66 men (39%). Participants ranged in age from 18 to 38 years ( $M = 20.8$ ,  $SD = 2.17$ ), and 92% reported competing in high school athletics or above.

## **Equipment**

***Occlusion spectacles.*** Knowledge of results was a potential threat to the feedback manipulation so visual performance feedback was occluded on each trial. Spectacles with Portable Liquid-Crystal Apparatus for Tachistoscopic Occlusion (PLATO; Translucent Technologies, Toronto, Canada) lenses were used to limit visual feedback that may contribute to knowledge of results on the novel motor task. The lenses were comprised of liquid crystal cells, powered by an electrical field applied across two glass plates. When activated, the state of the cells changed from transparent to translucent (milky texture) which prevented the participant from perceiving visual information. Translucency is obtained through light scattering; therefore, the eye remains equally illuminated and does not have to adjust to light when the lenses are reopened. The response time was approximately 3 to 5 ms to close upon activation. In the present study, the spectacles were activated by an optical sensor embedded in a rubber golf tee. As soon as the golf ball left the tee, ambient light triggered an optical sensor which activated the lenses and occluded participants' vision. Activation was estimated at 15 ms. Given that the

spectacles only limit foveal vision, felt side panels were added to occlude peripheral vision.

***Motor task.*** Participants were required to hit a Velcro-covered plastic golf ball with a standard pitching wedge (55° loft) off of a rubber tee and toward a target. The 48 cm diameter felt target was placed 150 cm from the tee. Participants were instructed to attempt to hit the ball as close to the bull's-eye as possible. A bull's-eye 2 cm in diameter was located directly in the center of the target. Concentric circles of 4, 8, 12, 16, 20, and 24 cm radius were demarcated from the center of the target.

### **Instrumentation**

***Need for achievement.*** Both attitudinal and cognitive-affective measures of nAch were administered in the current study. The 23-item Work and Family Orientation Questionnaire (WFOQ; Helmreich & Spence, 1978; Spence & Helmreich, 1983) yielded a score for workmastery, an attitudinal form of nAch which reflected the desire to work hard and experience challenge. Participants responded to items on a five-point scale ranging from *strongly disagree* (1) to *strongly agree* (5). Previous research (Chang et al., 1997; Helmreich & Spence, 1978) supported a multidimensional structure with correlated work, mastery, and competitiveness factors; however, studies frequently combine work and mastery into a single score based on their similar pattern of predicted outcomes. Given the strong association between competitiveness and performance-approach achievement goals ( $r = .76$ ) as well as aversive motivational systems documented in Chapter 3, the current study did not employ this factor in analyses.

The 5-item Need Achievement Pride Scale (see Chapter 3) provided a score for IaP, a cognitive-affective form of nAch. Participants rated how often they believed that evaluative situations result in affective arousal due to self-esteem enhancement on five items using a five-point scale ranging from *do not believe at all* (-2) to *believe 50% of the time* (0) to *believe 100% of the time* (+2). Chapter 3 of this dissertation documented the internal consistency, as well as factorial and external validity of NAPS scores.

***Fear of failure.*** The 25-item Performance Failure Appraisal Inventory (PFAI; Conroy et al., 2002) provided scores for general FF. The five-point response scale for this measure ranged from *do not believe at all* (-2) to *believe 50% of the time* (0) to *believe 100% of the time* (+2). Several studies have documented the factorial validity, external validity, and temporal stability of PFAI scores (Conroy, 2001b; Conroy & Metzler, 2003, 2004; Conroy, Metzler et al., 2003; Conroy et al., 2002).

***State pride and shame.*** The Differential Emotion Scale (DES; Izard, 1971) provided scores for state pride and shame. Each subscale consisted of adjectives that characterize the discrete emotion. The pride subscale was developed specifically for this study to assess pride using three adjectives: proud, triumphant, and puffed up. Several participants asked the experimenter to clarify the meaning of puffed up. Not surprisingly, this item significantly compromised internal consistency of the pride scale (mean  $\alpha = .67$  compared to .83 without); therefore, pride was operationally defined as the average rating of two adjectives: proud and triumphant.<sup>3</sup> The shame subscale comprised six adjectives, four originally derived by Izard and two additional adjectives (humiliated, embarrassed) used specifically for this study. Participants rated each adjective on a five-point scale

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<sup>3</sup> Recent research by Tracy and Robins (2007), published after completion of the present data collection, identified several additional adjectives for assessing state authentic and hubristic pride.

ranging from *not at all* (1) to *extremely* (5) to describe how they felt “right now”. The shame subscale has demonstrated acceptable internal consistency ( $\alpha = .87$ ) in previous research (McGregor & Elliot, 2005).

***Performance.*** Participants were instructed to use the pitching wedge to hit the ball as close as possible to the bull’s-eye of the target. A ball that landed on the bull’s-eye received a score of 7. Concentric circles from the center of the target provided performance scores on the task ranging from 6 to 1, respectively. A shot that did not hit the target received a score of 0.

***Manipulation checks.*** To test the efficacy of the manipulation, participants responded to single items that measured task stress (“How stressful do you expect the upcoming task to be?”), demand (“How demanding do you expect the upcoming task to be?”), and threat (“How threatening do you expect the upcoming task to be?”), as well as coping ability (“How well do you think you will be able to cope with the upcoming task?”) both prior to and after performing the entire task (items were reworded in past tense). Participants rated each of these items on a scale ranging from *not at all* (1) to *very much* (5). After each performance block on the motor task, participants rated their perceived performance on a scale ranging from *awful* (0) to *perfect* (10) to ensure that the feedback manipulation was effective in modifying participants’ psychological situation.

## **Procedure**

Participants were recruited for a study exploring how college students perform on a novel coordinated motor skill. They were informed that the purpose of the study could not be fully explained before participation because the validity of the results could be

affected by knowledge of the purpose. Experimenters also informed participants that they would have the opportunity to receive a complete explanation of the study's purpose following their participation in the study. After providing informed consent, participants completed a short demographics questionnaire followed by the NAPS, WOFO, and PFAI. Next, the experimenter described the golf task and showed participants the visual occlusion spectacles that they would wear during the task. To increase participants' investment and valuation of competence in the task, the experimenter stated that "how well an individual performs on this task has been found to predict hand-eye coordination and general motor ability. It also predicts some aspects of intelligence associated with information processing efficiency."

Participants completed one practice block of 10 trials on the motor task without wearing the occlusion spectacles. After each trial in the practice block, the experimenter provided participants with knowledge of results (i.e., score). Upon completion of the practice block participants completed measures of state pride and shame. Participants then completed three additional blocks of 10 trials wearing the occlusion spectacles.

Following each trial in these three blocks, the experimenter indicated the direction of error relative to the bull's-eye (e.g., "low and left") so participants could use this information to perform more accurately on the next trial. After each performance block, participants provided a self-rating of perceived performance, received normative performance feedback in accordance with their experimental condition (i.e., success/failure), and reported their affective state using selected DES subscales.

Before participants arrived for testing each day, they were randomly assigned to receive normative success ( $n = 88$ ) or failure ( $n = 80$ ) feedback. Upon completion of the

first block of performance trials, the experimenter entered performance data for the block into a laptop computer and informed the participant that “based on your five best trials in that block, you performed (success condition: better; failure condition: worse) than 74% of college students who are performing this task for the first time. You are in the (success condition: top; failure condition: bottom) 26<sup>th</sup> percentile.” The procedure was replicated in subsequent blocks; however, for the second and third blocks, participants were told they performed (success condition: better; failure condition: worse) than 78% and 87%, respectively, and that they were in the (success condition: top; failure condition: bottom) 22<sup>nd</sup> and 13<sup>th</sup> percentile, respectively. These performance levels varied monotonically to ensure that participants felt increasingly competent or incompetent with each trial.

Following the affective self-reports after the third block of trials, a funneled debriefing procedure was used to identify participants who were suspicious of study procedures. Participants were then debriefed regarding the true nature of the task, the random nature of performance feedback, and the true purpose of the study.

### **Data Analysis**

In the current study, affective assessments ( $n = 4$ ) were nested within individuals so multilevel modeling was employed to account for the high degree of dependence present in the data structure. Level-1 unconditional change models represented the individual change for each outcome variable; no explanatory variables were incorporated in these models. Three unconditional change models were specified for each outcome variable to evaluate intraindividual change in scores across waves. Each of these models provided information regarding the sample mean and individual deviations from this

mean. The *intercept* factor in these models represented the initial status of individuals on the construct. *Slope* factors represented the amount of intraindividual change over subsequent assessments. Variances of parameter estimates that differed significantly from zero indicated intraindividual variability which could be explained using individual difference variables as covariates (Sayer & Cumsille, 2001).

Factor loadings between manifest variables and the latent intercept factor were fixed to one in all models. A *no change* model was specified by fixing the four slope factor loadings to zero. A second plausible change model, labeled *linear change*, was specified by fixing the slope factor loadings to the corresponding feedback dose (i.e., wave 1 = 0, wave 2 = 1, wave 3 = 2, and wave 4 = 3). In this model, the slope factor represented the rate of change per feedback dose. A third plausible change model, labeled *natural logarithmic change*, was specified by fixing the slope factor loadings to the natural log of the wave (i.e., wave 1 = 0, wave 2 = 0.69, wave 3 = 1.10, and wave 4 = 1.39). In the linear and natural logarithmic change models, the intercept and slope factors were permitted to covary.<sup>4</sup>

There was no missing data in the current study; therefore, the latent change analyses presented in this study used maximum likelihood estimation with AMOS 5 (Arbuckle, 2003; Arbuckle & Wothke, 1999). As recommended by Hoyle and Panter (1995), both absolute and relative fit indices were examined. The  $\chi^2$  statistic, the normed fit index (NFI; Bentler & Bonett, 1980), and standardized root mean square residual (SRMR; Bentler, 1995) served as absolute fit indices while the non-normed fit index

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<sup>4</sup> A theoretically plausible alternative model to test would be a power polynomial model where pride/shame increase/decrease asymptotically. A proper asymptotic model was not tested because feedback doses were limited to three doses. To test a truly asymptotic function would require more estimates to generate an accurate curve.

(TLI; Tucker & Lewis, 1973), and comparative fit index (CFI; Bentler, 1990) were used as relative fit indices. SRMR values less than .08 indicate good fit (Hu & Bentler, 1999). Values of .90 and .95 indicate acceptable and good fit, respectively, for the NFI, TLI, and CFI (Bentler & Bonett, 1980; Hu & Bentler, 1999).

It is possible that pride and shame responses share some variability. For instance, when successful, individuals may simultaneously experience increased pride and decreased shame. Upon establishment of the most appropriate unconditional change model for each affect, the models were combined to model conditional pride and shame dynamics simultaneously. Explanatory variables were added to predict intercept and slope factors, where appropriate (i.e., if significant variances existed). To assess these individual differences, four hierarchical Level-2 models were specified with the following sets of predictors: (1) workmastery; (2) feedback, IaP, and FF main effects; (3) three two-way interactions between motives (IaP and FF) and feedback; and (4) one three-way interactions between motives and feedback.<sup>5</sup> All motive predictors were free to covary with each other in all models. Additionally, feedback was free to covary with each feedback interaction variable. Feedback and its interactions were only permitted to predict slope factors whereas all motive variables (main effects and interactions between motive variables) were permitted to predict intercept and slope factors. For conditional change models, squared multiple correlations ( $R^2$ ) for each latent factor were evaluated to assess the proportion of variance accounted for by covariates.

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<sup>5</sup> Sex differences may also impact self-conscious affect (Barrett, Zahn-Waxler, & Cole, 1993; Lewis et al., 1992). Parallel analyses controlling for sex were conducted. No differences in interpretation of predictors between analyses with or without sex controlled were revealed. The latter analyses are presented currently.



## Results

Immediately following the practice block, no significant differences between feedback groups were observed for task stress, task demand, task threat, coping ability, perceived performance, and actual performance ( $p > .05$ ). Table 4-1 displays results from repeated measures ANOVA to demonstrate the efficacy of the feedback manipulation. Examination of the time (pre vs. post)  $\times$  feedback group revealed significant differences for self-reported task stress [ $F(1) = 8.28, p < .01$ ], task demand [ $F(1) = 4.08, p < .05$ ], coping ability [ $F(1) = 35.89, p < .01$ ], perceived performance [ $F(1) = 161.71, p < .05$ ], but not task threat [ $F(1) = 2.23, p > .05$ ] or actual performance [ $F(1) = 0.14, p > .05$ ]. The strongest effect of the manipulation was evident for perceived performance. These results provided evidence that participants' perception of performance success and failure were successfully manipulated. Table 4-2 displays descriptive statistics and internal consistency estimates for motive dispositions, pride, and shame, as well as a complete correlation matrix. With the exception of a weak negative relationship between workmastery and FF, achievement motives were generally independent. Group assignment was not associated with motives or baseline affect. IaP and FF were positively associated with pride and shame, respectively. Pride and shame became increasingly negatively associated across waves which suggested a possible dynamic relationship between these self-conscious affects.

Table 4-1: Manipulation Check Results

	<u>Success Group</u>					<u>Failure Group</u>					$\eta_p^2$
	<u>Pre-task</u>		<u>Post-Task</u>		<i>d</i>	<u>Pre-task</u>		<u>Post-Task</u>		<i>d</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Task Stress	2.58	0.99	2.07	0.93	-0.53	2.58	0.98	2.63	1.13	0.05	0.05**
Task Demand	2.99	1.18	2.43	1.16	-0.49	3.19	1.24	2.96	1.31	-0.18	0.02*
Task Threat	1.64	0.99	1.51	0.86	-0.14	1.73	0.98	1.78	0.91	0.05	0.00
Coping Ability	3.74	0.86	4.24	0.71	0.63	3.93	.87	3.51	1.22	-0.40	0.18**
Perceived Performance	2.89	0.82	3.67	0.67	1.04	2.78	0.91	1.73	0.81	-1.22	0.49*
Actual Performance	1.87	0.93	2.17	1.10	0.29	1.87	0.92	2.22	1.06	0.35	0.00

\*\*  $p < .01$ , \*  $p < .05$

Table 4-2: Descriptive Statistics and Pearson Correlations Between Constructs

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Experimental Group	0.52	0.50	--											
2. Workmastery	53.86	5.47	.00	.71										
3. Intrapersonal Pride	0.68	0.71	.06	.11	.87									
4. Fear of failure	-0.15	0.60	.04	-.18*	.08	.75								
5. Pride 1	2.08	0.69	.01	-.07	.18*	.11	.65							
6. Pride 2	2.16	0.85	.63**	.02	.16*	.01	.39**	.86						
7. Pride 3	2.07	0.90	.68**	.03	.12	.01	.32**	.89**	.88					
8. Pride 4	2.17	1.06	.73**	.04	.12	-.01	.25**	.85**	.92**	.90				
9. Shame 1	1.44	0.62	.05	-.14	.05	.19*	.06	.08	.18*	.10	.87			
10. Shame 2	1.53	0.71	-.39**	-.08	.04	.19*	.05	-.29**	-.19*	-.26**	.65**	.89		
11. Shame 3	1.53	0.74	-.44**	-.09	.06	.17*	.08	-.29**	-.28**	-.34**	.55**	.89**	.89	
12. Shame 4	1.54	0.82	-.49**	-.07	.05	.18*	.10	-.30**	-.31**	-.40**	.47**	.84**	.93**	.90

*Note.* Cronbach's alpha for each measure are presented in the diagonal of the matrix.

\*\*  $p < .01$ , \*  $p < .05$

### Unconditional Change Models: Description of the Nature of Affective Change

Table **4-3** displays fit indices and parameter estimates for unconditional latent change models. Natural logarithmic models provided the best fit for changes in both pride and shame. Intercept and slope were uncorrelated for both pride and shame models. As expected, neither pride nor shame slope means differed significantly from zero because the success and failure feedback groups were collapsed in these models. Each model revealed significant variation in initial status and slope, thus it was appropriate to model Level-2 covariates to predict individual differences in each of these parameters.

Table 4-3: Fit Indices and Parameter Estimates for Unconditional Longitudinal Change Models

	df	$\chi^2$	df		$\chi^2$	NFI	TLI	CFI	SRMR	<u>Intercept</u>		<u>Slope</u>	
			diff	diff						<i>M</i>	<i>Var.</i>	<i>M</i>	<i>Var.</i>
<b>Pride</b>													
No change	8	188.49	--	--		.69	.77	.70	.21	2.42**	1.24**		
Linear	5	86.38	3	102.11**		.86	.84	.86	.15	2.37**	0.46**	0.03	0.09**
Natural logarithmic	5	50.12	0	36.26**		.92	.91	.92	.08	2.37**	0.32**	0.05	0.65**
<b>Shame</b>													
No change	8	120.21	--	--		.82	.88	.84	.09	1.53**	0.49**		
Linear	5	32.09	3	88.12**		.95	.95	.96	.05	1.49**	0.33**	0.02	0.03**
Natural logarithmic	5	12.34	0	19.75**		.98	.99	.99	.02	1.46**	0.30**	0.07	0.20**

\*\*  $p < .01$ , \*  $p < .05$

### Conditional Change Models: Predictors of Pride/Shame and Pride/Shame Change

Given that pride and shame became increasingly negatively associated across waves, pride and shame were modeled simultaneously. Pride and shame intercepts were unrelated to each other ( $p > .05$ ); however, pride and shame slopes were strongly associated ( $r = -.83, p < .01$ ). These parameter estimates indicated that although baseline levels of pride and shame were independent, individuals who increased in pride also decreased in shame and vice versa. Whereas shame intercepts were unrelated to shame slopes ( $p > .05$ ), pride intercepts were positively associated with pride slopes ( $r = .37, p < .05$ ) suggesting that individuals with high baseline pride were more likely to increase pride than individuals low in baseline pride.

**Changes in model fit.** Model fit for Step 1 [ $\chi^2(100) = 395.02, \text{NFI} = .78, \text{TLI} = .79, \text{CFI} = .82, \text{SRMR} = .15$ ] which included only WOFO – workmastery, was unacceptable. The addition of feedback, IaP and FF in Step 2 significantly improved absolute model fit compared to Step 1 [ $\Delta\chi^2(10) = 167.99, p < .01$ ]. The addition of two-way interactions in Step 3 did not significantly improve absolute model fit compared to Step 2 [ $\Delta\chi^2(8) = 12.61, p > .05$ ]. Similarly, three-way interactions added in Step 4 did not significantly improve model fit compared to Step 3 [ $\Delta\chi^2(2) = 0.02, p > .05$ ]. Fit of the final (Step 2) model [ $\chi^2(90) = 227.03, \text{NFI} = .87, \text{TLI} = .89, \text{CFI} = .92, \text{SRMR} = .07$ ] was adequate according to conventional criteria (Bentler & Bonett, 1980; Hu & Bentler, 1999).

**Pride intercept.** Achievement motives explained 5.7% of the variance in baseline levels of pride; however, IaP was the only significant predictor ( $\beta = .23, p < .05$ ).

**Pride slope.** Step 2 of the pride change analyses revealed that participants who received success feedback were more likely to experience increased pride following feedback ( $\beta = .85, p < .01, R^2 = .74$ ). Neither two-way interactions nor the three-way interaction accounted for significant amounts of additional variance in pride slope ( $p > .05$ ).

**Shame intercept.** Achievement motives explained 3% of the variance in baseline levels of shame; however, FF was the only significant predictor ( $\beta = .18, p < .05$ ).

**Shame slope.** Participants who received failure feedback increased their shame following feedback ( $\beta = -.65, p < .01, R^2 = .43$ ). Neither two-way interactions nor the three-way interaction accounted for significant amounts of additional variance in shame slope ( $p > .05$ ).

## Discussion

Although resting levels of pride and shame did not covary, changes in these affects were strongly related which supported modeling pride and shame change simultaneously when evaluating person and situational predictors. By controlling shared variance between pride and shame responses, strong conclusions can be made about specific predictors of pride and shame parameters. Self-conscious affect was clearly affected by characteristics of the situation and person. Normative feedback exerted the most substantial impact on pride and shame responses explaining 74% and 43% of the variance, respectively. Whereas individual differences in IaP and FF predisposed individuals to experience elevated resting levels of pride and shame, respectively, achievement motives did not influence changes in self-conscious affect.

## **The Role of Success and Failure Feedback on Pride and Shame Responses**

The present results represent the first characterization of the nature and rate of pride and shame responses to success and failure feedback. As expected, affective change was best represented by natural logarithmic change models that approximated decreasing rate of change between feedback intervals. Individuals' affective responses were most impacted by the initial dose of feedback that revealed whether they were successful or failing. Subsequent feedback produced additional changes in self-conscious affect; however, these effects were considerably diminished compared to those following the initial bout of feedback. The observed effect raises an interesting question about possible dose-response relations between feedback content and these self-conscious affects. For instance, it is plausible that the rate of change in self-conscious affect would be considerably less if initial feedback revealed individuals outperformed, or underperformed, 50% of college students instead of the 74% benchmark used in the current study. Future research will need to examine whether the magnitude of affective responses is associated with the level of success/failure experienced.

Consistent with studies sampling children (Belsky et al., 1997; Heckhausen, 1984, 1987a, 1987b; Heckhausen, 1988; Lewis et al., 1992; Stipek et al., 1992), success feedback increased pride whereas failure feedback increased shame in the current study. These results added to the literature in at least three regards. First, with two notable exceptions (McGregor & Elliot, 2005; Tracy & Matsumoto, 2007), the present study provided unique evidence concerning the effects of success and failure on pride and shame specifically in a population other than children (i.e., college students). Another unique feature of this study was that it treated shame and pride as discrete emotions



rather than combining them into an omnibus indicator of feelings of self-worth as others have done in studies of college students' affective responses to feedback (Brown & Dutton, 1995; Dutton & Brown, 1997). Third, the repeated-measures design allowed for latent growth curve modeling of affective change. In real-world achievement settings, individuals are faced with ongoing evaluative feedback. When performing a novel task, individuals rely on feedback from others (especially when all other sources of feedback are eliminated); therefore, initial success or failure feedback can be most influential compared to follow-up feedback. Lastly, the current results provided evidence that the emotional effects of feedback are attenuated with subsequent doses. Future research could examine pride and shame responses to feedback that oscillates within individuals between success and failure to determine whether or not wholesale shifts in the nature of feedback substantially perturb the affective system. Do those individuals who experience pride due to success on multiple occasions become resilient to shame changes when faced with failure?

### **The Effects of Achievement Motives on Pride and Shame Responses**

*IaP effects on affective responses.* IaP demonstrated a significant relationship with baseline pride but was unrelated to baseline shame, as hypothesized. It is not entirely surprising that IaP was not a strong predictor of baseline levels of pride given that achievement motives are conceptualized as relatively stable dispositions (Atkinson, 1957) whereas pride and shame as discrete emotions are transient in nature (Lazarus, 1991). Based on their respective relations with pride levels at the beginning of a competence

pursuit, IaP scores, not workmastery scores, tap into the nAch motive as conceived by McClelland and colleagues (McClelland et al., 1953).

Contrary to expectations, IaP did not accentuate pride responses to success. High IaP individuals tend to adopt mastery-approach achievement goals (see Chapter 3). As such, these individuals may not experience accentuated increases in pride upon outperforming others because they evaluate their competence based on how they performed relative to their previous performances. In other words, outperforming others may not be perceived as a clear indication of competence or be a salient source of self-esteem enhancement for high IaP individuals. Scholars could expect that future studies would reveal pride increases for high IaP individuals who perceived successfully outperforming self-referenced standards rather than normative standards.

***FF effects on affective responses.*** In concert with classic achievement motivation theory (Atkinson, 1957), individuals high in FF revealed high baseline shame. One of the reasons high FF individuals are anxious about competence evaluation is that they believe failure will result in experiencing shame (Conroy, 2000, 2001b; Conroy et al., 2002); therefore, it is not surprising that these individuals have elevated resting shame levels. High FF individuals appear to experience greater anticipatory shame in achievement situations as proposed by McClelland and colleagues (McClelland et al., 1953).

High FF did not accentuate shame in the present study. It is possible that competence valuation, the importance an individual places on competence striving, may have moderated the effect of FF on shame change (Elliot et al., 2000). High FF individuals who experienced failure may devalue the importance of the task as a means to self-protect. Task devaluation may have resulted in attenuated shame responses.

Alternately, individuals may have attributed failure externally to task difficulty or novelty. Tracy and Robins (2006) provided empirical support for the proposition that shame-prone individuals attribute failure externally to avoid the painful emotion of shame. Individuals high in FF may not experience increased shame because they engage in this protective self-regulatory strategy.

### **Limitations**

The limited magnitude of shame change may have limited the effect of FF on shame responses to failure. In general, participants reported low levels of shame at all time points ( $M < 2$  on a 5 point scale); therefore, the present experimental manipulation weakly elevated shame in the failure group. There are several plausible reasons for the limited shame response. First, the current study created a performance-approach achievement goal climate by instructing participants that monetary rewards were based on their ability to outperform others. Had the task been based on avoiding incompetence, participants may have demonstrated heightened shame upon failure. For example, instructions given to individuals to avoid being outperformed by others, paired with providing a monetary allowance to begin the task but reclaiming a percentage of it when they failed (Higgins, Shah, & Friedman, 1997), might serve to elevate the shame response. Second, participants performed in front of one observer, the experimenter. The presence of multiple observers may be needed to create the public evaluation that facilitates shame responses (Dickerson, Gruenewald et al., 2004; Dickerson & Kemeny, 2004). Third, participants may have perceived the task as more than moderately difficult. As demonstrated in children (Belsky et al., 1997; Lewis et al., 1992), failure at difficult

tasks may not produce shame to the extent of failure at easy tasks. Fourth, participants may have maintained preconceptions about their golfing ability that may have tempered their shame responses. Individuals who believed they lacked golf skill may have assumed that individuals would outperform them and thus may not have experienced shame upon failing to outperform others. Future research should attempt to ensure that the activity performed is ego-involving so that failure leads to global attributions about the self. Lastly, as a sport skill, the task itself may not have been truly novel to participants. Even if participants had never engaged in the laboratory version of the task, they may have felt familiar with golf chipping. Individual differences in affective responses may have been stronger on a completely novel task, or a task that carefully controls for experience with the skill.

Future research should address some of the limitations present in the current study. First, self-conscious affect was assessed by self-reports only. Pride can be coded from specific non-verbal displays (Geppert, 1986; Geppert, Schmidt, & Galinowski, 1997; Tracy & Robins, 2004b). Informal and unsystematic observations of participant body language in the current study appeared to differentiate those who succeeded from those who failed. Coding non-verbal displays of pride and shame responses to success and failure would alleviate threats associated with relying on self-report data. Second, the current research focused solely on normative success and failure; therefore, the extent to which the findings generalize to pride and shame responses to mastery success and failure cannot be discerned. Pride and shame dynamics may differ as a function of instructions, reward structures, or references for competence feedback. Third, achievement motives of participants in the current study were not delimited; therefore,

the sample included a variety of levels of achievement motives which may have attenuated any effect. Rather than examine the average individual, it may be more fruitful to select individuals with extreme levels of IaP and FF to gain insight into how these motives moderate success/failure feedback (Sorrentino & Short, 1977). Fourth, feedback was manipulated between people instead of within people. Research employing intraindividual variations in success and/or failure would provide stronger conclusions regarding within-person affective changes corresponding to such a manipulation. Fifth, participants were drawn from a collegiate sample; therefore, it is not clear if these results will generalize to children or older adults. Finally, the highly-controlled laboratory setting offered several advantages but it may have eliminated some sources of variance that are salient in real-world achievement contexts. Individuals typically can rely on multiple sources of feedback, both internal and external, to discern degrees of success and failure. In this study, individuals had to rely entirely on one external source of feedback, the experimenter. While performing a motor skill in competition or as part of a physical activity class, additional feedback from environmental and internal cues may influence affective responses. Skill learning and performance enhancement require feedback to contain information. Motor adjustments are made to compensate for deficiencies on a previous attempt. Given its focus on affective phenomenon, the current research attempted to remove authentic information regarding performance (i.e., knowledge of performance) so that knowledge of results could be manipulated. Future research should use authentic sport environments that provide feedback that contains informational and motivational cues.

## Conclusions

The current study documented long-theorized associations between achievement motives and affective responses to competence evaluation (Atkinson, 1957) – associations which have until now received little empirical attention. Although success and failure are important determinants of self-conscious affective responses, the evidence reported here highlights the importance of considering individual differences in achievement motivation profiles for understanding competence pursuits and affective responses to these pursuits. Individuals who are focused on demonstrating normative competence as a means of experiencing pride (i.e., nAch) or avoiding shame (i.e., FF) do indeed experience different affective responses to evaluation as a function of their individual differences in nAch and FF (Elliot & Thrash, 2001a). Given that normative success and failure are inevitable outcomes in real-world achievement settings (e.g., sport, school, work) and that consequences of pride and shame distinctly contrast, it is particularly important that scholars attend to the achievement motives that energize achievement pursuits. Clearly, individual differences in achievement motives are valuable for predicting how people respond affectively to being placed in achievement situations. When faced with evaluation, high IaP and FF individuals appear to be primed to experience pride and shame, respectively. Success and failure are powerful situational characteristics that impact self-conscious affective change; however, the indirect consequences of achievement motives on baseline pride and shame may be important to examine.

## **Chapter 5**

### **Conclusions**

## Conclusions

The current dissertation addressed three central purposes. The first manuscript reviewed the literature and integrated theories central to achievement motivation and emotion with the aim of explaining benefits of bifurcating nAch based on anticipated locus of esteem enhancement. The second manuscript described the development of a new instrument to assess the two related forms of nAch identified in the first manuscript and established preliminary psychometric properties of scores from this instrument. The third manuscript presented an experimental study that examined how individual differences in achievement motives and normative competence feedback are associated with self-evaluative affects. Overall, these three articles highlighted how approach-valenced achievement motives can be helpful for fully understanding achievement related processes.

The majority of approach-valenced achievement motivation scholarship, particularly within sport, has assumed a single source of energy for achievement strivings (for an exception see Helmreich & Spence, 1978). The first manuscript added to the achievement motivation literature by examining nAch defined in terms of contemporary emotion theory. Classic theorists (Atkinson, 1957; McClelland et al., 1953; Murray, 1938) explicitly characterized nAch as a source of energy that directed individuals toward competence evaluation due to their propensity to anticipate pleasant affect, specifically pride, upon succeeding. This definition was extended here by drawing on contemporary emotion theory (Lazarus, 1991, 1999) to suggest that two forms of nAch may be distinguished based on the locus of anticipated esteem enhancement that was the basis for an individual's pride following success. Intrapersonal (IaP) and interpersonal pride (IeP)



were differentiated conceptually by their respective loci of esteem enhancement. Both IaP and IeP were defined as belief strength that competence evaluation presents an opportunity to enhance esteem upon succeeding. The source of anticipated esteem enhancement for IaP is the self, whereas for IeP, the source is other people. Achievement motivation scholarship in sport was theorized to be enhanced by bifurcating nAch into two distinct, yet hierarchically-structured constructs, because this model affords precise analysis of distinct reasons individuals are motivated to approach success.

The integration of achievement motivation and emotion theories stimulated the measurement research documented in the second manuscript. Bifurcation of nAch was supported by confirmatory factor analysis of responses to items designed to measure IaP and IeP. Factorial invariance analyses supported this hierarchical and multidimensional structure and its parameters across an independent sample. Despite its psychometrically sound structure, NAPS scores of self- (i.e., IaP) and social-esteem (i.e., IeP) enhancement do not both represent motives based on classic achievement motivation theory criteria (McClelland et al., 1953). Overall, IaP was positively associated with appetitive motivational systems, self-esteem, pleasant affect, and negatively associated with depression. These individuals also tend to evaluate their success based on approach achievement goals, thus, they tend to assess either (a) whether they are outperforming others instead of whether they are being outperformed by others, or (b) whether they are improving as opposed to declining compared to previous performances.

Despite these similarities, the nomological networks for these scores differ in theoretically meaningful ways. IaP, not IeP, contributed to variance in self-esteem, happiness, and depression. High IaP appears to be grounded in an internal focus toward

future competence opportunities and pleasant affect due to its focus on self-esteem enhancement. These individuals may be more self-sufficient and do not need to rely on outside sources for self-regulation, nor do they prefer to do so. In support of this argument, IaP demonstrated a unique positive association with mastery-approach achievement goals and negative association with mastery-avoidance goals, whereas IeP contributed exclusively to variance in competitiveness, fear of failure, and negative temperament. Social-esteem enhancement requires interpretation as well as responses from other people; therefore, individuals high in IeP, may be sensitive to external consequences. These individuals tend to orient themselves to outperforming others (i.e., performance-approach), avoiding being outperformed (i.e., performance-avoidance), or maintaining previous personal standards (i.e., mastery-avoidance).

In light of this work, only the IaP scale from the NAPS can be considered a measure of self-attributed nAch. High nAch individuals can be expected to report preferences, attitudes, and behaviors assessed by the WOFO as well as cognitive-affective schemas involving anticipatory pride from intrapersonal esteem enhancement assessed by the NAPS. NAPS scores shared variance with, and demonstrated similar relationships with external constructs as, WOFO scores (Spence & Helmreich, 1983). IaP appears to share conceptual space with the workmastery dimension which has been characterized as an intrinsic form of nAch whereas IeP overlapped with competitiveness which represents an extrinsic form of nAch (Helmreich & Spence, 1978). IaP and IeP scores, like workmastery and competitiveness scores (Elliot & McGregor, 2001), demonstrated associations with mastery-approach and performance-approach achievement goals, respectively. In sum, the current work places the IaP scale from the

NAPS among existing self-attributed nAch measures; however, given its theoretical foundation, conceptual clarity, and distinct correlates, it is a unique assessment tool.

The third manuscript provided support for classic theoretical assumptions of self-conscious affect associated with achievement motives. When placed in situations of normative competence evaluation, individuals high in IaP and FF tend to have elevated baseline pride and shame, respectively, which is consistent with classic definitions of nAch and FF (Atkinson, 1957). Individuals who anticipate experiencing pride due to self-esteem enhancement when faced with evaluation (i.e., IaP) do in fact report higher levels of pride than those who do not anticipate this outcome. Similarly, individuals who anticipate experiencing shame when faced with evaluation (i.e., FF) report higher levels of shame than those who do not anticipate shame. Although achievement motives are important determinants of self-conscious affect experienced when confronted with competence pursuits, changes in self-conscious affect are strongly impacted by success and failure feedback. Whereas success begets increased pride, failure begets increased shame. This study also documented a strong dynamic relationship between pride and shame responses to feedback. Upon succeeding, individuals experienced increased pride and decreased shame simultaneously. Upon failing, individuals experienced precisely the opposite affective responses. Overall, this manuscript revealed person and situation factors as important predictors of chronic self-conscious affect and acute affective responses.

Our theoretical understanding of approach achievement motivation has been enriched in distinct ways. First, using the cognitive-motivational-relational theory of emotion to conceptualize individual differences in nAch has afforded a conceptually and

empirically precise assessment of a single approach-valenced achievement motive. Whereas individuals may have multiple reasons for being motivated to avoid failure (Conroy, 2001b, 2004; Conroy et al., 2002), the sole reason for being motivated to approach success is to enhance self-esteem. Rather than attributing nAch to competence behaviors or perceptions (Helmreich & Spence, 1978), the present reconceptualization described nAch in terms of modern emotion theory and stayed true to the original affective definition of the construct.

At its core, IaP is a motive that energizes and directs individuals' achievement behavior because they anticipate experiencing pride upon succeeding. The evidence in this work unambiguously supported IaP as being an adaptive achievement motive given its unique link to appetitive motivational systems, self-esteem, and affective stability. High IaP individuals may be able to evaluate performance using both internal and external standards and can utilize normative comparison for information (Veroff, 1969).

In contrast, IeP does not meet criteria for inclusion as a motive due to its association with both appetitive and avoidance motivational systems (McClelland et al., 1953). High IeP individuals may seek to both maximize pride and minimize shame which leaves them motivationally disoriented. Given that a motive by definition should provide energy and direction for behavior, IeP cannot be considered a motive. Not surprisingly, consequences associated with IeP may be unpredictable. High IeP individuals overly evaluate competence evaluation in terms of social outcomes, possibly even when normative standards are minimized and internal standards are explicit. Consequently, high IeP individuals may experience emotional and attentional inconsistency which may lead to erratic behavior and performance. These individuals may have high levels of

aspirations because they are oriented to enhance social-esteem especially given that achievement is highly valued in Western culture. The current results do not support the interpretation of IaP as a motive in achievement motivation scholarship. Pending evidence of a theoretically-sensible interpretation for IaP scores, this scale should not be used in achievement motivation research.

### **Implications for Future Research**

This work evokes new recommendations for achievement motivation research in sport and beyond. Three general target areas are highlighted below as priority areas for continuing this line of research: (1) establish additional consequences of IaP, (2) investigate interactions between variability in people and situations, and (3) identify the ontogeny of individual differences in nAch.

### **Additional Consequences of Intrapersonal Pride**

Future research should focus on determining a broader range of consequences of each component of nAch, particularly adaptive processes theoretically linked to achievement. IaP is likely to be associated with a variety of adaptive achievement processes given its focus on esteem enhancement through self-perceptions. Research is needed to investigate whether or not high IaP individuals expect to demonstrate competence in achievement situations (Elliot & Church, 1997), are confident in their abilities to achieve, have high levels of self-determination, and engage in critical examination of technique and strategy (i.e., deep processing, Elliot & McGregor, 2001).

High IaP individuals may also be more likely to engage in deliberate practice (Ericsson, Krampe, & Tesch Roemer, 1993) because they are theorized to be self-sufficient in choosing moderately challenging tasks, hypervigilant for competence-related feedback, persistent in the face of failure, and likely to output consistent effort regardless of the social context surrounding the task.

### **Person × Situation Research Agenda**

Future motivation scholarship should also consider adopting a person × situation research agenda (Mischel & Shoda, 1995; Smith, 2006). The current research limited its scope to interindividual variability in achievement processes. Participants either succeeded or failed across multiple attempts; however, in an authentic sport environment, individuals will experience both success and failure across attempts. Future research should investigate how achievement motives moderate individuals' affective responses to oscillating bouts of success and failure feedback. *If* an individual high in IaP receives feedback that she outperformed others, *then* what is her affective response to subsequent failure to outperform others? Does this response change if she experiences failure first followed by success? High IaP individuals may be able to maintain emotional stability due to their focus on their own perceptions of esteem. Examination of achievement motives as moderators of intraindividual variability in affective responses to success and failure feedback is a logical next step for future research. The present research also placed individuals of different achievement motives in different situations based solely on performance success/failure. Scholars may find different results for feedback based on mastery success/failure. It is possible that high IaP individuals, who improve upon their

previous performances will report increased pride given their focus on self-esteem enhancement.

Another potential avenue for this line of work is to examine the moderating effects of IaP on the relationship between extrinsic rewards and intrinsic motivation. In general, intrinsic motivation is undermined by tangible rewards (e.g., trophies, scholarships, prizes) but enhanced by verbal praise (Deci, Koestner, & Ryan, 1999). The phenomenon has been explained by Deci and Ryan's (2000) self-determination theory which suggests individuals desire to be connected with others (i.e., need for relatedness), the origin of their own behavior (i.e., need for autonomy), and to interact effectively with the environment (i.e., competence). External rewards are theorized to undermine individuals' autonomy because the reward becomes the controller of behavior whereas verbal praise is theorized to provide information regarding competence. High IaP individuals may be able to interpret external rewards as information about competence rather than a source of control because they are oriented toward experiencing pride and are likely to make internal appraisals (i.e., take credit) for success. Low IaP individuals may be more likely to attribute success externally; therefore, they allocate control outside of themselves and reduce self-determination. Consequently, the effect of extrinsic rewards on intrinsic motivation may be enhanced for high IaP but undermined for low IaP.

As an initial examination of the effects of achievement motives on affective responses, this work was conducted in a controlled environment which may limit the generalizability of results. Future research should relax constraints allowing achievement processes to be examined in a more realistic setting. In authentic sport environments,

coaches vary in their approaches to providing feedback as well as the nature of the feedback they provide. As an initial investigation, the researcher provided competence-based feedback with a neutral tone; however, affective responses to feedback may be moderated by the affiliative tone (e.g., hostile-friendly) of the feedback as well as individual differences in achievement motives. Individuals high in FF may be more sensitive than those high in IaP to interpersonal content in feedback. As a result, high FF individuals may have difficulty differentiating interpersonal content from competence information. Future research could manipulate the way feedback is delivered to examine the moderating effects of achievement motives on affective responses under hostile and friendly conditions. Alternately, research could examine these effects in concert with perceptions of affiliation/hostility within a naturalistic environment.

### **Ontogeny of Intrapersonal Pride**

Considerable theorizing regarding the socialization of motive dispositions has been proffered (McClelland, 1965). Much of this early work focused on development of nAch and inspired the creation and evaluation of training programs. Scholarship focused on parenting and nAch (Rosen & D' Andrade, 1959; Winterbottom, 1953, 1958) described mothers and fathers as responsive, supportive, affectionate, and oriented toward fostering autonomy. In elaborating upon a theory of nAch development, McClelland (1965) proposed growth in nAch is “more likely to occur in an interpersonal atmosphere in which the individual feels warmly but honestly supported and respected by others as a person capable of guiding and directing his (sic) own future behavior” (p.



329). More recent research focused on teachers (Covington & Dray, 2002) provided additional evidence for the role autonomy-support could play in nAch development.

Research is needed to examine developmental processes that lead to IaP. Given that self-conscious emotions which are the foundation of competence motives can be expressed as early as 20 to 24 months old (Geppert, 1986; Heckhausen, 1988; Stipek et al., 1992), research should examine early parental influences on nAch development. Reconceptualized in terms of pride, nAch is hypothesized to generate unique physical and behavioral responses that catalyze interpersonal behaviors, which perpetuate its development. The experience of pride is hypothesized to prompt individuals to disclose their achievements to others. Stipek et al. (1992) discovered toddlers ranged in age from two to five years old were significantly more likely to call attention to the outcome they produced when they were successful than when they failed. Examining interpersonal dynamics associated with success and failure may shed light on how IaP develops. Additional moderators such as age, gender, and amount of resources, particularly important interpersonal figures, might be profitable for uncovering socialization processes that foster IaP development.

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## Appendix

### The Need Achievement Pride Scale

-2	-1	0	+1	+2
Do Not Believe At All		Believe 50% of the Time		Believe 100% of the Time

#### Intrapersonal Pride

1. When I am challenged to demonstrate my ability, I am very pleased with the opportunity to increase my view of myself.
2. When I am presented with achieving something new, I am excited by the chance to enhance my opinion of myself.
3. When I am asked to display my ability, I am excited with the opportunity to think more highly of myself.
4. When my talent is about to be evaluated, I feel good knowing I have the opportunity to add to my self-worth.
5. When I am asked to display my talent, I am enthusiastic about the possibility of increasing my opinion of myself.

#### Interpersonal Pride

6. When I am faced with new challenges, I feel really good that I have the opportunity to increase others' opinions of me.
7. When I am asked to display my ability, I am excited with the opportunity to prove myself to others.
8. When my talent is about to be evaluated, I feel good knowing I have the opportunity to show my value to others.
9. When I am faced with new challenges, I am excited by the chance to gain others' admiration.
10. When I am asked to display my talent, I am enthusiastic about the possibility of increasing others' view of me.

## VITA

**Jonathan N. Metzler**

### Education

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*The Pennsylvania State University*, University Park, Pennsylvania  
Ph.D., Kinesiology, Specialization: Psychology of Movement and Sport, 2007  
*The University of North Carolina*, Chapel Hill, North Carolina  
M.A., Exercise and Sport Science, Specialization: Sport Psychology, 2001  
*Concordia University*, Portland, Oregon  
B.A., Psychology, 1998  
B.A., Liberal Arts, concentration in Physical Education, 1998  
B.A., Secondary Education, endorsement in Biology, 1998

### Experience

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*Assistant Professor*: Department of Health & Kinesiology, Georgia Southern University, Statesboro, Georgia, 2006 – present  
*Temporary Instructor*: Jiann-Ping Hsu School of Public Health, Georgia Southern University, Statesboro, Georgia, 2005 – 2006  
*Graduate Assistant*: Department of Kinesiology, The Pennsylvania State University, University Park, Pennsylvania, 2000 – 2005  
*Graduate Assistant*: Department of Exercise and Sport Science & Department of Music, The University of North Carolina, Chapel Hill, North Carolina, 1998 – 2000

### Publications

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Silva, J. M., **Metzler, J. N.**, & Lerner, B. (2007). *Training professionals in the practice of sport psychology*. Morgantown, WV: Fitness Information Technology.

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