UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

PERFECTIONISM: THE RELATIONSHIP TO WELL-BEING AND ACHIEVEMENT MOTIVATION IN COLLEGE LEARNERS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

DOCTOR OF PHILOSOPHY

By

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Norman, Oklahoma
2014

PERFECTIONISM: THE RELATIONSHIP TO WELL-BEING AND ACHIEVEMENT MOTIVATION IN COLLEGE LEARNERS

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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DEDICATION

I dedicate this dissertation to Zion, without whom I would have never had enough courage to go after my dreams. You are my most perfect achievement and I am forever grateful to you. I love you very much. I also wish to dedicate this dissertation to my mother, Pamela Joy. Thank you for believing in me and your continued support, prayers, and encouragement. Throughout this process I have reflected on the wise question you repeatedly asked me, "How do you eat an elephant? One bite at a time." Well, I did it mom! (and dad would be proud now that I have joined the clean plate club)

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my advisor, Dr. Teresa DeBacker. Without your mentoring, support, and encouragement, I could not have navigated through my degree program and this dissertation. It was an honor to be your student, thank you. I wish to also thank Dr. Beach, Dr. Crowson, Dr. Greene, and Dr. Heddy for your continued support through this lengthy process, your guidance, and your commitment to making me a stronger researcher. Special thanks to Dr. Miller for wisely instructing me years ago to pick a research topic that would hold my interest when frustrations would inevitably run high. I wish to honor two of my peers, Pennie Vargas and Chad Mortensen. I have always admired you both and I am so grateful for our friendship. Thank you for your endless help and encouragement.

Many thanks to my friends, who are my family. Tim Edwards, even a broken clock is right twice a day. Thank you for always reminding me to "not let perfect be the enemy of good." Savannah Bellamy, you are the most thoughtful and kind person I know. Thank you for your support and reminding me to celebrate each victory along the way. Liz Guilfoyle, your endless encouragement and making me laugh daily kept me sane. Kelly James, thank you for the countless hours you listened to me as I walked through this season of my life. Your guidance made me a believer. David Stover, even though you like country music, you were my rock during those last few weeks of writing. Thank you for your humor and telling me over and over that I could and would finish.

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ABSTRACT

This study consisted of 354 university students and examined the relationship between facets of perfectionism and measures of emotional well-being, achievement motivation, and emotions. Cluster analysis was performed using the Short Form of the Revised Almost Perfect Scale (SAPS). The results of cluster analysis yielded three clusters that represented adaptive perfectionists, maladaptive perfectionists, and non-perfectionists. These three perfectionism typologies were compared on the Unconditional Self-Acceptance Questionnaire (USAQ), the Performance Failure Appraisal Inventory-Short Form (PFAI), the Achievement Goal Questionnaire (AGQ), and the Topic Emotions Survey. The findings indicated that the negative feature of perfectionism (e.g., discrepancy) and maladaptive perfectionists qualitatively differed from adaptive and non-perfectionists on measures of emotional well-being, achievement motivation, and emotions.

CHAPTER ONE

Introduction

Problem Statement

"They say that nobody is perfect. Then they tell you practice makes perfect. I wish they'd make up their minds." -Wilt Chamberlain

Perfectionism is a prevalent trait among many students, especially within higher education populations. Research has identified as many as sixty-six percent of college student populations as perfectionists and indicate that the excessive standards and expectations associated with maladaptive perfectionistic students lead to dysfunctional feelings and cognitions (e.g., hostility and hopelessness), depression, anxiety symptoms, and suicidal probability (Accordino, Accordino, & Slaney, 2000; Chang, 1998, 2000, 2006; Flett, Hewitt, & Dyck, 1989; Frost et al., 1990; Grzegorek, Slaney, Franze, & Rice, 2004; Rasmussen & Eisen, 1992; Rice et al., 1998; Stoeber & Eysenck, 2008). Educators need to understand the psychological and motivational implications of perfectionists in the classroom. Individuals with perfectionism uphold unrealistically high standards of achievement, and subsequently are prone to excessive self-criticism due to the inevitable discrepancies between their actual and ideal outcomes (Blatt, 1995). As such, researchers historically viewed perfectionism as a neurotic trait, but over the last several decades conflicting views emerged surrounding the true nature of perfectionism.

Contemporary perfectionism literature is divided on whether perfectionism is purely pathological (see Burns, 1980) or comprised of both adaptive and maladaptive aspects (see Hamachek, 1978). These debates have prompted researchers to slowly shift their view on perfectionism to that of a multi-dimensional construct which

encompasses both adaptive and maladaptive attributes (Bieling, Israeli, & Antony, 2004; Dixon, Lapsley, & Hanchon, 2004; Frost, Martin, Lahart, & Rosenblate, 1990; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Hewitt & Flett, 1991; Parker, 1997; Rice, Ashby, & Preusser, 1996; Slade & Owens, 1998; Slaney, Ashby, & Trippy, 1995). Despite the changing views on perfectionism, some researchers question whether the adaptive features of perfectionism are merely indicative of positive personality characteristics or instead, behavioral characteristics that serve a "conscientious" function towards achievement striving (see Flett & Hewitt, 2006; Owens & Slade, 2008). The division among perfectionism theorists, highlights the critical need for more research in these areas.

Perfectionism literature has provided a foundational understanding of the differences between adaptive and maladaptive perfectionists; however, researchers understand less about how adaptive perfectionists seem to mitigate the negative emotional consequences associated with striving towards perfection. Adaptive perfectionists are associated with positive affect and adjustment (Blatt, 1995; Frost et al., 1993; Hewitt & Flett, 1991; Rice & Lapsley, 2001) and show little association between critical self-talk and achievement outcomes (Rice & Ashby, 2007). Conversely, maladaptive perfectionists are marked by extreme self-criticalness, negative self-evaluations, and a persistent sense of failure when unable to reach desired achievement outcomes (Blankstein & Dunkley, 2002; Blatt, 2004; Conroy, Willow, & Metzler, 2002; Rice & Ashby, 2007).

Both adaptive and maladaptive perfectionism are marked by high achievement standards and striving behaviors. However, the two groups show notable differences

surrounding the likelihood of making adjustments to their respective achievement standards (Bieling, Israeli, Smith & Antony, 2003; Shafran, Cooper, & Fairburn, 2002; Terry-Short, Owens, Slade, & Dewey, 1995). Adaptive perfectionists show greater flexibility in their willingness to adjust academic goals; whereas, maladaptive perfectionists tend to demonstrate an unyielding pursuit of unrealistic achievement outcomes due to the rigid nature of their goal setting. These differences result in distinctive cognitive, emotional, and behavioral outcomes for each typology of perfectionism (Bieling, Israeli, & Antony, 2004; Hamachek, 1978; Rice, Ashby, & Slaney, 1998; Suddarth & Slaney, 2001). From an educational stand point, the inherent differences between adaptive and maladaptive perfectionists warrant further investigation and therefore my study intends to explore these issues. Knowing more about how these typologies of perfectionism differ is the first step in being able to provide meaningful interventions for students who are fixated on the ever-present gap that lies between their ideal selves and reality.

CHAPTER TWO
Literature Review

Perfectionism

> To be perfect would require an individual to be an automaton without charm, without character, without vitality, and almost without any redeeming qualities…The human quality in each of us comes from our imperfections, from all of those 'defects' that give us our unique personalities and make us real people. Without those 'defects' we are cold, sterile, and, indeed, unlovable. (Pacht, 1984, p. 386)

As students enter college and often experience a new-found sense of freedom, they quickly encounter the many challenges and responsibilities associated with academic life. Many students struggle with adjusting to the rigorous and time consuming demands of academics (Aspinwall & Taylor, 1992; Lapsley, Rice & Shadid, 1989; Parker, Summerfeldt, Hogan, & Majeski, 2004; Rice & Dellwo, 2002). Moreover, college is structured in such a way that students often face increasing pressure to sustain high achievement outcomes and are even encouraged to compete among their cohorts. That kind of achievement pressure may indicate why within universities, depression and anxiety are two of the most prevalent health issues among students (Blatt, 2004; Eisenberg, Gollust, Goberstein, & Hefner, 2007; Hewitt & Flett, 1993; Rice, Leever, Christopher, & Porter, 2006). A study by Gall and associates (2000) indicated that long-term emotional and behavioral maladjustment could be predicted for individuals who struggled balancing the shifting demands of college responsibilities. However, there is one subset of the university population whose

psychological well-being is particularly vulnerable as they endeavor towards high academic achievement: perfectionists.

Perfectionism, in particular, is common among college students, and is linked to poor adjustment (Hewitt & Flett, 1991; Shafran & Mansell, 2001). This finding may be due in part to the excessive "striving for flawlessness" and aversion towards failure that researchers consider core features of perfectionism (Flett & Hewitt, 2002, p. 5). The demands of college tend to heighten achievement concerns among students in general, but for the perfectionist, achievement ideals only seem to illuminate the gap between where they are academically and where they want to be. Specifically, emotional health variables like self-acceptance and fear of failure are key attributes that can impact an individual's level of emotional well-being; and individuals with perfectionism, specifically maladaptive perfectionists, fit the demographic of those who are potentially at risk for developing emotional distress (Dryden & Neenan, 2004; Ellis, 2003; Ellis & Robb, 1994; Rogers, 1947; Weiner, 1992; Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1987).

Researchers have extensively investigated the construct of perfectionism, however, theorists still disagree on how it should be operationalized. Within clinical and academic arenas, perfectionism has been a topic of discussion for the better part of the last eight decades (Burns, 1980; Hamachek, 1978; Horney, 1950; Missildine, 1963; Murray, 1938; Pacht, 1984). Some literature defines perfectionism as a maladaptive attribute; that is, as holding standards that are beyond reach or rationality, straining to reach those impossible goals, and defining one's worth by the accomplishment of those standards (Bieling, et al., 2003; Flett & Hewitt, 2002; Frost et al., 1990; Hewitt & Flett,

1991). Initially, many researchers accepted this unidimensional conceptualization of perfectionism. Greenspon (2000) even declared that "perfectionism is a wound; it is never healthy, and it may never heal entirely" (p. 207). Over time, though, the conceptual view of perfectionism began to shift towards being a multi-dimensional construct comprised of both adaptive and maladaptive features. Despite these changes, however, researchers still disagree on the origin and central defining components of perfectionism. Subsequently, researchers continue to investigate the developmental antecedents of perfectionistic cognitions, striving behaviors, and maintenance mechanisms.

Perfectionism research indicates that behavior, learning processes, and psychological health become vulnerable as the individual begins to strive towards "valued goals;" however, researchers know less about the influences of perfectionism in the classroom, and how it may very among adaptive and maladaptive perfectionists. As researchers continue to investigate perfectionism typologies, the story surrounding the differences between adaptive and maladaptive perfectionists will have the chance to emerge. Once the theoretical underpinnings of perfectionism are better understood, theorists and educators will be able to help alleviate some of the inherent threats to student motivation and psychological well-being. Therefore, my study will attempt to expand the literature by focusing on how distinctive typologies of perfectionism are associated with student motivational orientations and psychological well-being within educational contexts. Understanding how the unique features of adaptive and maladaptive perfectionism potentially impact academic pursuits, goal-setting, and emotional well-being is beneficial to researchers, educational psychologists, and

educators alike and will ultimately support students as they wade through the myriad of demands that encompass life in college.

Etiology of perfectionism. "The most difficult part of attaining perfection is finding something to do for an encore." -Author Unknown

Horney (1950) describes perfectionists as those who "measure their self-worth in terms of unachievable goals of accomplishment and productivity and have their lives ruled by a self-imposed 'tyranny of the should' (p. 65)." The question then arises, where did the sense of "should" originate? Researchers have utilized several theories to explain the developmental precursors of perfectionism. Despite any theoretical differences, however, researchers generally agree that perfectionism develops during childhood and parents play a centralized role in that process (Blatt, 1995; Frost, Lahart, & Rosenblate, 1991; Hamachek, 1978; Sorotzkin, 1998).

Bandura (1986) similarly asserted that the social environment strongly influences the psychological development of children. Social learning theories suggest that specific types of social interactions between children and significant caregivers, via reinforcement and modeling, provide an ideal climate to foster perfectionism (Bandura, 1977; Blatt, 1995; Frost et al., 1991). Specifically, research suggests that perfectionism can be cultivated in family environments where parents mandate strict standards of achievement and criticize their children when they fall short of those standards (Frost et al., 1990). The prevalence of specific parental attributes like harshness, praise, and involvement has been associated with self-esteem, goal adoption, and perfectionism development in children (Blatt, 1995; Frost et al., 1991; Hamachek, 1978; Horn & Horn, 2007; Kawamura, Frost, & Harmatz, 2002; Pacht, 1984; Shafran & Mansell,

2001; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005). Moreover, households that adhere to unrealistically high achievement standards, cultivate performance-oriented achievement behaviors (e.g., McArdle & Duda, 2005).

Research studies also support the relationship between social expectations set by parents and the development of perfectionism in children (Enns, Cox, & Clara, 2002; Flett, Hewitt, Oliver, & MacDonald, 2002; Missildine, 1963; Rice, Ashby, & Preusser, 1996). Childhood is the time "parents begin to convey and enforce standards for behavior" (Kochanska, Clark, & Goldman, 1997, p. 388). Operant Learning Theory similarly maintains that environmental consequences (positive or negative) will reinforce behavior (Skinner, 1953). Initially, social expectations are externally regulated to help children learn not only proper moral values (e.g., laws, social conventions, etc.), but also the behaviors needed for success and acceptance. Hamachek (1978) believed that parents could foster maladaptive perfectionism in their children when they were unyielding in their expectations of achievement and unable to show contentment with their children's achievement outcomes. In this way, parents and social expectations can significantly foster or undermine a child's motivations, beliefs, and behaviors (Deci & Ryan, 1985; Kochanska et al., 1997).

In an effort to maintain "connection," children will begin to integrate the social expectations set by their parents. Self-Determination Theory (SDT) maintains that behavior is oriented around a basic human need for relatedness; in this process, social expectations shape behavior via the external cues given from caregivers (e.g., contingent approval, punishment, and shame), which eventually become internalized and self-regulated (Chandler & Connell, 1987; Deci & Ryan, 1985). As such, children

eventually "absorb" these social expectations, conventions, and values as their own and begin to self-regulate their behavior accordingly (Chandler & Connell, 1987; Kochanska, et al., 1997; Lepper, 1983). Internalization is the name of this process and is a major goal of the socialization. "When the internalization process functions optimally, people will identify with the importance of social regulations, assimilate them into their integrated sense of self, and thus fully accept them as their own. In doing so, they will become more integrated not only intrapsychically, but also socially" (Deci & Ryan, 1985, p. 236).

When a child's need for autonomy is supported by parents and teachers, the internalization process will function properly (Ryan & Deci, 2000); however, non-optimal forms of internalization are fostered from parents who use psychological control to change a child's cognitions, emotions, and behaviors (Ryan, 1982). In these instances, the individual may not fully identify with the social regulations, but still orient their behavior in ways to meet these expectations as a means to avoid aversive consequences (Conroy, Willow, & Metzler, 2002). While the individual can still internalize "nearly impossible" expectations, it stands to reason that experiencing an "integrated" sense of self and maintaining psychological well-being will prove challenging (Frost et al., 1990; Hewitt & Flett, 1991; Whittal & Dobson, 1991). For example, some parents burden their children with unrealistic expectations for behavior. Subsequently, these types of parents will subject their children to harsh criticism, guilt, and love withdrawal if they fail to meet parental ideals (Assor, Roth, & Deci, 2004; Barber, Stolz, & Olsen, 2005; Hewitt & Flett, 1991; Pacht, 1984). Children become especially vulnerable to internalizing critical messages if their family environment

prescribes to unrealistic standards of performance (Bronfenbrenner & Morris, 1998). Consequently, children tend to foster their own negative self-evaluations by harshly criticizing their efforts as not being good enough (Frost et al., 1991).

Other theorists believe perfectionistic ideals develop from the child's fundamental need to maintain connection with significant caregivers (Blatt, 1995; Flett, Hewitt, & Singer, 1995; Hamachek, 1978; Horney, 1950; Pacht, 1984). As such, researchers have also examined the relationship between perfectionism and parental attachment (Andersson & Perris, 2000; Rice & Mirzadeh, 2000). In attachment theory, Bowlby (1973) explains that maintaining parental nurturance is the basic survival function of children. Through the quality of care in these relationships, children develop internal "working models" on how they should view themselves and the world (Bowlby, 1988). Family environments that lack proper care, support, and predictability can produce children with insecure attachment styles (Bowlby, 1973). Specifically, children with insecure attachment styles are associated with trying to hide imperfections in an effort to maintain and nurture parental connection (Flett et al., 2002a); and several studies suggest a relationship between maladaptive perfectionism and an insecure attachment style (Andersson & Perris, 2000; Rice, Lopez, & Vergara, 2005; Rice & Mirzadeh, 2000; Wei, Heppner, Russell, & Young, 2006; Wei, Mallinckrodt, Russell, & Abraham, 2004), and adaptive perfectionism and secure attachment (Rice et al., 2005; Rice & Mirzadeh, 2000; Sorotzkin, 1998). Consequently, children will orient themselves towards perfectionism when parents withhold acts of nurturing and/or continually raise their performance standards (Frost et al., 1991; Missildine, 1963).

Flett and associates (2002) suggested the Anxious-Rearing model as another possible explanation for the development of perfectionism. This model focuses on the way parental rearing behaviors impact family environments. Specifically, this model suggests that "anxious cognitions" develop from anxious parenting behaviors (Barrett, Rapee, Dadds, & Ryan, 1996). Parents may prime their children for maladaptive perfectionism by their excessive focus on error avoidance. For example, parents who consistently model mistake avoidance and other perfectionistic rearing behaviors begin to promote perfectionistic behaviors within their children (Hewitt, Flett, Sherry, & Caelian, 2006). Perfectionism is "shared" with others in the family unit through "parental worry" and a "focus on the negative consequences of making mistakes" (Flett et al., 2002, p. 95). When children receive messages that avoiding mistakes is highly important and a means for family acceptance, their cognitions and subsequent behaviors become motivationally orientated towards perfectionistic ideals.

Conceptual frameworks of perfectionism. "Perfectionism is a twenty-ton shield that we lug around thinking it will protect us when, in fact, it's the thing that's really preventing us from taking flight" (Brown, 2010, p. 56).

Similarly to the differing theories surrounding the developmental precursors of perfectionism, researchers use a variety of frameworks to conceptualize perfectionism. Theorists have categorized perfectionists as normal/neurotic, adaptive/maladaptive, functional/dysfunctional, active/passive, healthy/unhealthy, and conscientious/self-evaluative (Adkins & Parker, 1996; Blankstein & Dunkley, 2002; Chang, 2006; Hamachek, 1978; Hill et al., 2004; Rheaume et al., 2000; Rice et al., 1998; Terry-Short et al., 1995). Additionally, researchers describe behaviors of interest as perfectionistic

strivings/perfectionistic concerns, perfectionism cognitions, personal standards/evaluative concerns, and performance perfectionism (Flett, Hewitt, Blankstein, & Gray, 1998; Frost et al., 1993; Frost et al., 1995; Lombardi, Florentino, & Lombardi, 1998; Stoeber & Otto, 2006). Despite the range of terminology used to describe perfectionism categories within the literature, this paper will use the terms adaptive and maladaptive.

Hamachek (1978) was the first to distinguish between normal and neurotic perfectionists. Normal or adaptive perfectionists "are those who derive a very real sense of pleasure from the labors of a painstaking effort and who feel free to be less precise as the situation permits" (Hamachek, 1978, p. 27) and "approach tasks with a confident desire for mastery and expectation for improvement" (Dixon et al., 2004, p. 96). Conversely, neurotic or maladaptive perfectionists show susceptibility towards negative self-beliefs (i.e., self-doubt and perceived limitations) and are unable to experience pride from their accomplishments because "in their own eyes they never seem to do things good enough to warrant that feeling" (Hamachek, 1978, p. 27). Hamachek (1978), differentiates normal and neurotic perfectionists differentiated by the ability to accurately ascertain their strengths and weaknesses. Normal perfectionists have the capabilities to set realistic expectations despite being self-critical; whereas, neurotic perfectionists are unable to tolerate error and therefore focus on avoiding mistakes (Frost et al., 1990).

In contrast to Hamachek's conceptualization of perfectionism (normal/neurotic), literature from the following decade regarded it as a component of a psychopathological personality. Pacht (1984) stated, "the insidious nature of perfectionism leads me to use

the label only when describing a type of psychopathology" (p. 387). These conceptions prompted researchers and practitioners to investigate the degree of pathological perfectionism an individual displayed (Burns, 1980; Hollender, 1978; Stoeber & Otto, 2006). Although perfectionism is not a diagnosable psychiatric condition according to *The Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association, 2013), research overwhelmingly indicates that perfectionism plays a role in the development and treatment of several psychological conditions including: depression, obsessive-compulsive disorder (OCD), panic disorders, eating disorders, mood disturbances, and personality disorders (Axtell & Newlon, 1993; Brouwers & Wiggum, 1993; Ellis, 1962; Hollender, 1965; Horney, 1950; Huprich, Porcerelli, Keaschuk, Binienda, & Engle, 2008; Lask & Bryant-Waugh, 1992; Missildine, 1963; Rasmussen & Eisen, 1992; Rosen, Murkofsky, Steckler, & Skolnick, 1989; Shafran & Mansell, 2001; Tyrka, Walsdron, Graber, & Brooks-Gunn, 2002). Subsequently, early research focused on the relation between high levels of perfectionism and psychiatric disorders (e.g., depression, eating disorders, social anxiety, phobias, obsessive-compulsive disorder, and somatic complaints). However, as time progressed, this unidimensional and solely negative view of perfectionism began to change.

Rooted in Hamachek's conceptual notions of perfectionism, researchers began to regard perfectionism as multi-dimensional. This resulted in the creation of two perfectionism scales that became instrumental in the current distinction between adaptive and maladaptive perfectionism (Bieling et al., 2004; Frost et al., 1990; Hewitt & Flett, 1991; Parker, 1997). Both sets of researchers named their instrument the

Multidimensional Perfectionism Scale, however, they differed in their approach for both operationalizing and measuring perfectionism (Hewitt, Flett, Turnbull-Donovan, & Mikail, 1991). Frost and colleagues (1990) measured perfectionism using six subscales: personal standards, concern over mistakes, parental expectations, parental criticisms, doubts about actions, and organization. Distinctively, Hewitt and Flett (1991) created a scale using a socio-psychological approach that categorized perfectionists into three broad categories: socially prescribed, self-oriented, and others-oriented.

Slaney and associates (2001) believed the current measures of perfectionism were inadequate because they only measured factors that caused or resulted from perfectionism. Specifically, Rice and Slaney (2002) expressed that other measures of perfectionism "seemed to be based on assumed causes, concomitants, or the resultant effects of being perfectionistic rather than a definition of the maladaptive aspect(s) of perfectionism" (p. 35). This general dissatisfaction was the impetus for the creation of the Almost Perfect Scale (APS; Johnson & Slaney, 1996; Slaney & Johnson, 1992), which the researchers designed to discriminate between the adaptive and maladaptive features of perfectionism. In 2001, after its use in several studies in the 1990s, the APS was revised and called the Almost Perfect Scale – Revised (APS-R; Slaney et al., 2001). The APS-R uses three subscales to measure adaptive and maladaptive perfectionism: high standards (HS), order (O), and discrepancy (Disc; Johnson & Slaney, 1996; Rice et al., 1998; Slaney & Ashby, 1996; Slaney & Johnson, 1992; Slaney et al., 2001; Slaney et al., 2002). The high standards and order subscales measure the adaptive dimensions of perfectionism, while the discrepancy subscale measures the maladaptive dimensions of perfectionism (Rice & Slaney, 2002; Rice et al., 1998). High standards refer to the

level of quality the individual seeks to achieve, and researchers regard high standards as the main component used to differentiate adaptive and maladaptive perfectionists from non-perfectionists (e.g., Gilman & Ashby, 2003). The order subscale measures preferences for organization and tidiness (Slaney et al., 2001). Conversely, researchers regard discrepancy as the defining attribute that distinguishes between adaptive and maladaptive perfectionism (Slaney & Ashby, 1996); and indicates the gap (real or perceived) between expected and actual achievement-related outcomes (Higgins, 1987).

Historically, researchers excluded the order subscale when defining perfectionism clusters (Ashby, Rice, & Kutchins, 2008; Hanchon, 2011; Rice & Ashby, 2007). This is in part due to research suggesting that order is not a core component of perfectionism (Frost et al., 1990; Rice & Ashby, 2007; Stoeber & Otto, 2006), nor does it assist in differentiating the perfectionism typologies (Rice & Ashby, 2007). However, other qualitative studies suggest that order is frequently mentioned only second to high standards in describing aspects of perfectionism (Slaney & Ashby, 1996). Amid the continued disagreements over which variables measure features of adaptive and maladaptive perfectionism, researchers modified the Almost Perfect Scale-Revised to a short form that included only the high standards and discrepancy subscales (Rice, Richardson, & Tueller, 2014). The Short Form of the Revised Almost Perfect Scale (SAPS) reduced both item redundancy and item ambiguity found in the APS-R (Rice et al., 2014). Rice and associates (2014) specifically created the SAPS to measure the adaptive and maladaptive typologies of perfectionism; therefore, due to the unique way this instrument can identify adaptive perfectionists, maladaptive perfectionists, and

non-perfectionists, the Short Form of the Revised Almost Perfect Scale will be used to measure perfectionism (Slaney et al., 2001).

With the development of instruments that could measure the multidimensional nature of perfectionism, research began to emerge indicating support for adaptive types of perfectionism (Enns & Cox, 1999; Frost et al., 1990; Hamachek, 1978; Rice, Ashby, & Preusser, 1996; Slade & Owens, 1998; Slaney, Ashby, & Trippy, 1995; Slaney, Rice, & Ashby, 2002). Researchers describe adaptive perfectionists as those who set high goal standards, utilize high levels of organization, engage in high striving behaviors, feel satisfaction after meeting performance goals, and have the flexibility to adjust performance expectations towards more realistic goals (Enns & Cox, 1999; Rice, Ashby, & Preusser, 1996; Slade & Owens, 1998; Stoeber & Rambow, 2007). These individuals are said to "approach tasks with a confident desire for mastery and expectation for improvement" (Dixon et al., 2004, p. 96) and be "driven by positive reinforcement and a desire for success" (Slade & Owens, 1998, p. 378). Contemporary literature indicates that adaptive perfectionism is associated with cognitions and behaviors that are beneficial to the individual, including: life satisfaction, persistence, positive affect, enhanced self-esteem, high motivation, conscientiousness, and high strivings for success and excellence (e.g., Bieling et al., 2003; Dixon et al., 2004; Gilman & Ashby, 2003; Rice & Lapsley, 2001; Stoeber & Otto, 2006; Stoeber & Rambow, 2007). Moreover, students classified as adaptive perfectionists tend to have positive achievement-related outcomes that include: greater academic efficacy, higher performance and grade point averages, better preparedness in school, mastery-approach behavior, creativity, and intrinsic motivation (Accordino et al., 2000; Ashby & Bruner,

2005; Bieling et al., 2003; Gilman & Ashby, 2003; Hill, Hall, Appleton, & Kozub, 2008; Mobley, Slaney, & Rice, 2005; Rice & Mirzadeh, 2000; Stober & Kersting, 2007; Wigert, Reiter-Palmon, Kaufman, & Silvia, 2012).

While some theorists insist adaptive aspects of perfectionism should be "encouraged and fostered" (Slade & Owens, 1998, p. 377), others entirely dismiss the notion of these adaptive features and instead argue that perfectionism is maladaptive and psychologically harmful (e.g., Flett & Hewitt, 2002; Greenspon, 2000). For example, several theorists continue to assert that perfectionism should be solely viewed as maladaptive (see Greenspon, 2000; Shafran et al., 2002), due to the central belief system that "a perfect state exists that individuals should try to attain" (Pacht, 1984, p. 388). Similarly, Lundh (2004) believed "perfection attainment endeavors" like "extreme striving for perfection; regarding anything short of perfection as unacceptable" (Slaney et al., 2001, p. 131) were highly maladaptive in nature and emotionally harmful to the individual. Correspondingly, research indicates that individuals with maladaptive perfectionism endure high stress and negative emotional consequences from their achievement standards and strivings (Blatt, 1995; Burns, 1980; Dixon et al., 2004; Hewitt & Flett, 1991; Pacht, 1984). Maladaptive perfectionists, in particular, are associated with suicidal tendencies (Adkins & Parker, 1996; Blatt, 1995; Delisle, 1986; Hamilton & Schweitzer, 2000; Shaw & Segal, 1999) and act as a stronger predictor of suicide than hopelessness (Shaw & Segal, 1999). For this reason, Blatt (1995) purported a relationship existed between this type of "intense" perfectionism and the suicides of three "talented, ambitious, and successful individuals" (p. 1005).

However, some researchers view perfectionism as dimensional in nature, and maintain that the same individual is capable of displaying both adaptive and maladaptive perfectionism characteristics (Suddarth & Slaney, 2001). In this regard, some theorists suggest that individuals vary not by category (e.g., adaptive, maladaptive, non-perfectionist) but by the degree of perfectionism that is activated (see Flett & Hewitt, 2002). Flett and Hewitt (2006) claimed "conclusive statements about whether perfectionism is positive or negative cannot be made without taking into account the outcomes that the perfectionist is experiencing in his or her environment" (p. 479). They also suggest that tasks posing minimal threat and/or stress to the individual would foster adaptive features of perfectionism, whereas tasks that are "high stakes" would elicit maladaptive features of perfectionism (Rice et al., 2006). In this sense, the type of perfectionism that presents is contingent on the amount of threat associated with the goal (Flett & Hewitt, 2001; Suddarth & Slaney, 2001). This idea has prompted some theorists to entertain the notion of hierarchicality based on task value (Heatherton & Baumeister, 1991, Rice et al., 2006). In this regard, emotional health is not always at risk since perfectionists might not always invoke their "ways."

Despite disagreements surrounding the adaptive features of perfectionism, researchers collectively agree that when perfectionism becomes maladaptive it is associated with several negative attributes (Blatt, 1995; Burns, 1980; Chang, 2000; Egan, Wade, & Shafran, 2011; Norman, Davies, Nicholson, Cartese, & Mallya, 1998). These individuals are described as those who demonstrate: excess rigidity in achievement expectations, fear of mistakes and criticism, task avoidance, negative affect, self-doubt, procrastination, harsh self-scrutiny, dissatisfaction, and feelings of

discrepancy between performance ideals and achievement outcomes (Bieling et al., 2003; Dunkley, Zuroff, & Blankstein, 2003; Enns & Cox, 1999; Frost et al., 1997; Hamachek, 1978; Hill, McIntire, & Bacharach, 1997; Parker, 1997; Parker & Stumpf, 1995; Shafran & Mansell, 2001; Stoeber & Rambow, 2007; Stumpf & Parker, 2000). Specifically, researchers suggest maladaptive perfectionism is "driven by negative reinforcement and a fear of failure" and should be "avoided or corrected due to the inherent disadvantages for individual" (Slade & Owens, 1998, p. 378). For this reason, researchers suggest maladaptive perfectionists think and behave in ways that are oriented around failure avoidance (Blatt & Zuroff, 2002; Elliot & Thrash, 2004; Gilbert, Clark, Hempel, Miles, & Irons, 2004; Slade & Owens, 1998). This assertion may explain why neuroticism and maladaptive perfectionism are so strongly associated (Stumpf & Parker, 2000).

Correlates of Perfectionism

"It's not worth our while to let our imperfections disturb us always." -Henry David Thoreau

In order to obtain a richer understanding of perfectionists within the classroom, it is important to discuss two key sets of variables: achievement motivation and emotional well-being. Therefore, the following sections will review how and why emotional well-being and achievement motivations are important to understanding perfectionism in the classroom. For decades, researchers have been investigating how psychological needs drive behavior (Murray, 1938). According to one of the major tenets of Self-Determination Theory (SDT), and perhaps the one most important in regards to child development, human behavior is driven by a need for relatedness (Deci

& Ryan, 1985). Within SDT, relatedness is defined as a need to be valued and accepted by significant others; as such, individuals will orient their behavior in ways to meet external expectations and maintain acceptability within significant relationships (Murray, 1938). For example, a study showed that parental expectations directly influenced student beliefs towards academic achievement and their subsequent behaviors in the classroom (Christenson, Rounds, & Gorney, 1992). Realistic standards of achievement nurtures performance, but when parents enforce academic standards that are unrealistically high, they tend to cultivate maladaptive feelings and behaviors among their children (Hamachek, 1978). For this reason, perfectionists are especially vulnerable to the influence of the significant others in their lives.

While there may be varying views on the etiology of perfectionism, researchers generally agree that significant caregivers and the social environment generate perfectionism ideals within children (Blatt, 1995; Enns, Cox, & Clara, 2002; Flett, Hewitt, & Singer, 1995; Frost et al., 1990; Hamachek, 1978; Hewitt & Flett, 1991; Missildine, 1963; Rice, Ashby, & Preusser, 1996). Due to an intense need for connection and acceptance, perfectionists are more vulnerable to criticism and disapproval (Flett & Hewitt, 2002; Horney, 1950); and therefore, become motivationally oriented to strive towards ever-impossible achievement ideals. The resulting cycle of striving to obtain and maintain approval through achievement efforts fosters an environment that research has shown to negatively affect an individual's emotional well-being (Blatt, 1995; Frost et al., 1990; Hamachek, 1978; Hewitt & Flett, 1991; Sorotzkin, 1998; Whittal & Dobson, 1991). Specifically, perfectionism literature suggests two correlates that seem to "motivate" these types of striving behaviors:

feelings of conditional acceptance and fear of failure (Blatt, 1995; Blatt & Zuroff, 2002; Burns, 1980; Dixon et al., 2004; Elliot & Thrash, 2004; Shafran & Mansell, 2001).

Covington's Self-Worth theory purports that, "a central part of all classroom achievement is the need for students to protect their sense of worth or personal value" (Covington, 1984, p. 5). Perfectionists, in particular, are oriented to strive for high standards of achievement in order to protect their self-worth (e.g., emotional well-being). Among perfectionists, self-worth is often externally defined because their "personal value" is contingent on performance outcomes meeting the high standards and approval of significant caregivers (Shafran & Mansell, 2001; Stoeber, Kempe, & Keogh, 2008; Tangney, 2002; Tangney, Wagner, & Gramzow, 1992). When an individual's emotional well-being is tied to successful achievement outcomes, their cognitions and behaviors surrounding learning will be motivationally oriented towards reaching those valued goals. For example, several studies indicate that perfectionism can influence achievement motivation (Accordino et al., 2000; Hanchon, 2010, 2011; Speirs-Neumeister, 2004; Speirs-Neumeister & Finch, 2006; Wang, Slaney, & Rice, 2007). Therefore, the following sections will also take a closer look into some subsets of achievement motivation, including: achievement goal orientation, perceived classroom goal structures, and achievement emotions.

Self-Acceptance. "The most terrifying thing is to accept oneself completely." - Carl Jung

Humanistic psychology theorists developed the conceptual framework of self-acceptance; and researchers have studied self-acceptance extensively over the last century (Adler, 1927; Freud, 1957; Fromm, 1947; Horney, 1937; Maslow, 1943;

Rogers, 1951). Researchers define self-acceptance as an individual's ability to maintain a positive, global sense of self, amid any shortcomings and/or failures (Chamberlain & Haaga, 2001; Flett, Besser, Davis, & Hewitt, 2003). As a result, self-acceptance reflects an individual's capacity to embrace both their strengths and weaknesses, and often serves as an indication personal satisfaction and happiness (Chamberlain & Haaga, 2001; Shepard, 1979). Rogers (1947) aptly described the important role self-acceptance plays within individuals:

> It would appear that when all of the ways in which the individual perceives himself—all perceptions of the qualities, abilities, impulses, and attitudes of the person, and all perceptions of himself in relation to others—are accepted into the organized conscious concept of the self, then this achievement is accompanied by feelings of comfort and freedom from tension. (p. 364)

In this way, self-acceptance is "crucial to solid emotional and behavioral health" (Ellis & Robb, 1994, p. 91).

Albert Ellis derived the concept of unconditional self-acceptance from Rational Emotive Behavior Therapy (REBT), whereby an individual works to wholly accept themselves, others, and life (Dryden & Neenan, 2004). Ellis (1977) defines an individual with unconditional self-acceptance as one who "fully and unconditionally accepts himself whether or not he behaves intelligently, correctly or competently, and whether or not other people approve, respect or love him" (p.101). To clarify, unconditional self-acceptance does not mean that an individual neglects their weaknesses, instead it involves detaching "performance" from both self-worth and what

others think (regardless of a positive or negative outcome; Beecher, 2009; DiGiuseppe, Doyle, Dryden, & Backx, 2014). Moreover, it allows individuals to set and pursue high goal standards without encountering feelings of failure or behaving in a dysfunctional manner since self-worth is not contingent on singular performance outcomes (Crocker & Park, 2004; Dryden & Neenan, 2004; Ellis, 2003). For this reason, theorists propose that personal adjustment and well-being are cultivated from unconditional self-acceptance (e.g., Rogers, 1951); whereas, contingent approval fosters harmful psychological consequences (Crocker & Park, 2004; Williams & Lynn, 2010).

From an early age, children become adept at recognizing how their behaviors guide responses from their parents (Cooley, 1964). So much so, that they can easily identify the relationship between successful achievement outcomes and approval from significant others (Conroy, 2001); and children have a tendency to define their global sense of self, based on how they feel important others will interpret their achievement outcomes (or lack thereof; Burhans & Dweck, 1995; Dweck, 1999; Kamins & Dweck, 1999). When parents continuously emphasize standards of high achievement, they cultivate an environment where children view parental love and acceptance as a product of meeting performance expectations (Hewitt & Flett, 1991; Pacht, 1984). Some researchers call this phenomenon "parental conditional regard" due to the idea that parents use approval as a "socializing agent" to foster desirable behavior and diminish undesirable behavior within their children (Assor et al., 2004).

Stemming from a desire to please and as a means to obtain unconditional acceptance, children will orient their behavior in ways to meet unrealistically high standards of achievement. In doing so, research indicates these individuals begin to

suffer problematic beliefs surrounding their efforts such as doubt, uncertainty, and conditional self-acceptance (Blatt & Homann, 1992; Hamachek, 1978; Rogers, 1951). For example, parents who hold unrealistically high expectations surrounding achievement outcomes, create pressure and foster performance anxiety in their children (Hill, 1987; Minuchin, 1987; Sigel, 1987). Additionally, if the child does achieve the "ideal" performance outcome, researchers assert that all feelings of satisfaction and pride will be fleeting due to the endless achievement expectations (Flett et al., 2003; Rogers, 1951).

Research clearly indicates the ways in which low levels of unconditional self-acceptance affects emotional well-being and is associated with psychological distress (Deci & Ryan, 1995; Ellis, 1962; Rogers, 1951; Williams & Lynn, 2010). For example, individuals with low levels of unconditional self-acceptance show an increase in depression and anxiety and a decrease in happiness and overall life satisfaction (Chamberlain & Haaga, 2001). In addition, research suggests that an individual's self-esteem will decrease when any future mistakes and/or failures are encountered (Ellis, 1976); since, according to the Sociometer Model of self-esteem, self-esteem acts as an indication of the amount of acceptance an individual perceives from significant others (Leary, 1999; Leary, Tambor, Terdal, & Downs, 1995). As a result, decreases in self-esteem due to social rejection act to strengthen an individual's need for approval and connection (Myers, 1999). Consequently, when love and acceptance become a moving target, an individual's emotional well-being greatly suffers.

Several research studies indicate that critical self-evaluations are fostered in environments where acceptance is contingent on meeting high standards of behavior

and/or achievement (Blatt, 1995; Chamberlain & Haaga, 2001; Missildine, 1963). For example, when parents constantly scrutinize effort, children begin to internalize "the parental voice" and develop their own critical self-evaluations towards standards of achievement (Blatt & Homann, 1992; Chamberlain & Haaga, 2001; Gilbert et al., 2004). Likewise, individuals who are highly self-critical tend to complain about chronic harsh evaluations and rejections from significant others (Blatt, 2004). One effect of critical self-evaluations is introjective depression, which is oriented around a fear of losing acceptance and love from important relationships (Blatt & Blass, 1996; Blatt, Shahar, & Zuroff, 2001). Specifically, introjective depression develops when an individual is unable to achieve goals set by themselves or significant others, thereby triggering a sense of failure and harsh self-criticism (Blatt, 1974; Blatt & Homann, 1992). However, research indicates that individuals who accept themselves unconditionally and see their value despite shortcomings, seem to eradicate the prevalence of depression and anxiety (Dryden & Neenan, 2004; Ellis, 1994).

Unconditional self-acceptance and perfectionism. Researchers suggest that attaining parental love is the cornerstone of perfectionism (Hamachek, 1979, Horney, 1950; Pacht, 1984). In this regard, several theorists assert that both parental pressure from harshly expressed expectations and conditional approval fosters maladaptive perfectionism ideals within children (Blatt, 1995; Flett et al., 2003; Hill et al., 2008; Stoeber & Rambow, 2007). Burns (1980) purported that two of the defining features of maladaptive perfectionists include: feelings of conditional self-acceptance and negative self-evaluation. Additionally, Hewitt and Flett (1991) noted that some perfectionists believe others "have unrealistic standards for them, evaluate them stringently, and exert

pressure on them to be perfect" (p. 457). Subsequently, identity becomes tied to achievement-related endeavors and is strongly reinforced by allowing these individuals to remain acceptable to themselves and significant others (Flett & Hewitt, 2002; Horney, 1950; Parker & Adkins, 1995). In an effort to bolster feelings of self-acceptance, these individuals will engage in perfectionistic tendencies (Flett et al., 2003; Flett & Hewitt, 2002; Horney, 1950). Perhaps that is why Hamachek (1978) described perfectionistic tendencies as reflecting "a deep-seated sense of inferiority and is a learned way of reaching for approval and acceptance by setting standards for achievement or performance that are unrealistically high" (p. 30).

Maladaptive perfectionism acts as the antithesis of unconditional self-acceptance because the individual's goals and standards are regulated by a sense of contingent self-worth that is coupled with a high sensitivity towards indications of failure (Flett et al., 1991; 1994). As high achievement outcomes increasingly become the marker of approval from significant others, individual self-acceptance becomes equally vulnerable. This kind of complex vulnerability may occur because feelings of failure plague perfectionists (Hewitt et al., 2002; Shafran et al., 2002); and because perfectionists measure "their worth entirely in terms of productivity and accomplishment" (Burns, 1980, p.34), and relentlessly strive for flawlessness (Slade & Owens, 1998; Slaney et al., 2001). Moreover, perfectionists experience a heightened perception of conditional self-acceptance when they set high standards for achievement and fail to reach them (Blankstein et al., 1993; Blatt, 1995). Contingent approval makes perfectionists hyper-vigilant in error avoidance behaviors, which in turn perpetuates harsh self-criticism and reinforces strict standards of performance (Flett et al., 2003;

Habke & Flynn, 2002; Heimberg & Becker, 2002). Subsequently, perfectionists maintain their behaviors as a means to cope with feelings of contingent approval (Flett et al., 2003; Flett & Hewitt, 2002).

Due to a hyper-awareness of achievement outcomes, it does seem likely that perfectionism and low unconditional self-acceptance are strongly associated (Ellis, 2002). Moreover, "performance-based approval" fosters a heightened sense of threat and vulnerability towards failure indicators; especially among those individuals who affiliate failure with negative social consequences (Assor et al., 2004; Blankstein, Flett, Hewitt, & Eng, 1993; Frost et al., 1991; Rice et al., 1996). Literature indicates that conditional acceptance also fosters considerable psychological issues within perfectionists including depression, guilt, shame, and anxiety (Blatt & Shichman, 1983; Blatt & Zuroff, 1992; Chamberlain & Haaga, 2001; Ellis, 2002; Flett et al., 2003; Flett et al., 2002; Stoeber et al., 2008). Additionally, maladaptive perfectionists experience fear of failure emotions due to their experiences with performance-based acceptance (Burns, 1980; Flett & Hewitt, 2002).

Perfectionists seemingly struggle with the ability to acknowledge their "flaws" without experiencing them as an indicator of their global value. In this way, perfectionists struggle with faulty self-labels and live under the ruling arm of conditional self-acceptance. Currently, there is growing evidence suggesting a relationship between components of perfectionism (e.g., striving behaviors and cognitions) and low unconditional self-acceptance (Flett et al., 2002; Flett, Russo, & Hewitt, 1994). It does seem likely that harsh self-evaluations, when channeled through an intense fear of conditional self-acceptance, would result in depressive symptoms or

other maladaptive emotional experiences. Therefore, the Unconditional Self-Acceptance Questionnaire (USAQ; Chamberlain & Haaga, 2001) will be used to determine the relationship between the facets of perfectionism and self-acceptance; and whether there are differences between adaptive perfectionists, maladaptive perfectionists, and non-perfectionists groups within this study.

Failure appraisal. "All of us failed to match our dreams of perfection. So I rate us on the base of our splendid failure to do the impossible." -William Faulkner

Appraisals have been defined as the ability to evaluate outcomes and/or circumstances as either positive or negative (i.e., this can be done presently or retrospectively; Lazarus, 1991; Ellsworth & Scherer, 2003). Researchers assert that achievement expectancies shape whether an individual will appraise an outcome as a success or a failure (Lazarus, 1991; Weiner, 1985). Appraisal processes vary among individuals (i.e., often due to goal orientations), and subsequently these differences will elicit discrete emotional experiences (Ellsworth & Scherer, 2003). Literature purports that these evaluative processes are continuously monitoring the environment, and therefore influence emotional experiences (Pekrun, 2006). Moreover, research studies suggest that achievement appraisals impact future goal pursuit, and achievement-related behavior and outcomes (Elliot & Pekrun, 2007; Roseman & Smith, 2001).

Attribution Theory proposes that the beliefs and explanations an individual uses to account for their successes and failures influences emotions, motivation, and behavior (Weiner, 1985, 1992; Weiner et al., 1987). Similarly, Kruglanski (1996) believed that, "goals energize our behavior and guide our choices" (p. 599). While goals may motivate action, the way an individual evaluates achievement-related

outcomes can greatly affect their emotional well-being (Ellis & Dryden, 1997, Pekrun, 2006; Schutz & Davis, 2000). In particular, feedback plays a centralized role in success/failure appraisals during a student's educational experience (Ford & Smith, 2007). However, feedback is not the only appraisal method a student will use when assessing their achievement outcomes.

Another source of evaluative information stems directly from how individuals define and perceive success/failure outcomes; which have important implications surrounding motivation and goal-directed behavior. For some individuals, reaching defined goals whether those goals were self-directed or implemented via an external source is its own reward. For other individuals, standards of "success" are harder to define. Within the realm of perfectionism, specifically maladaptive perfectionism, feelings of dissatisfaction and never measuring up to achievement ideals are pervasive. In this regard, achievement outcomes are not only measured by evaluative feedback, but also by the individual perception of performance quality (Passer, 1983).

Research suggests that it is the perception of success and/or failure, and not the objective outcome that is most impactful to individuals (Maehr & Nichols, 1980). For example, individuals who experience performance-based approval become highly sensitive towards any indication of success or failure (Baldwin & Sinclair, 1996), and show a greater incidence of depression and self-esteem effects after receiving negative feedback or experiencing failure (Whittal & Dobson, 1991; Zuckerman, 1979). Several studies suggest that individuals who more accurately appraise achievement outcomes are also more efficient at regulating their emotional responses to various life

experiences (Carver & Scheier, 1998; Gross, 2001; Joseph & Newman, 2010; Robinson, Ode, & Hilmert, 2010; Wilkowski & Meier, 2010).

Bandura and Locke (2003) stated that, "humans react self-critically to performances that are deficient or that violate their personal standards and react with pride and self-satisfaction when they attain what they value" (p. 94). This asserts that when an individual perceives they have successfully accomplished their goal they will feel a sense of well-being and joy, whereas any indications of "falling short" on a valued goal tend to be destructive both emotionally and motivationally (e.g., Turner & Waugh, 2007). Similarly, several researchers suggest that perceived failures will elicit a global blaming response within the individual that further triggers self-critical cognitions surrounding ability; these types of negative self-appraisals and thought processes can ultimately impede future performance outcomes due to a growing fear of failure (Allen & Wuensch, 1993; Boggiano & Ruble, 1986; Nicholls & Miller, 1984).

Fear of failure. Fear is "a normal reaction to any real or imagined threat" (Gullone & King, 1993, p. 137). It is customary to experience some levels of performance anxiety within academic contexts, and therefore fear of failure has often been associated with performance anxiety (Atkinson & Litwin, 1960; Elliot & McGregor, 1999; Higgins, 1987; Smith & Smoll, 1990; Tangney, 1990). However, individuals who stay in a heightened sense of threat due to potential achievement-related outcomes, are experiencing something more than "performance anxiety" (Conroy et al., 2002; Pekrun, 1992a; Tangney, 1996). Atkinson (1966) defines fear of failure as a "disposition to avoid failure and/or a capacity for experiencing shame or humiliation as a consequence of failure" (p. 13). Other researchers describe fear of

failure as, "the tendency to appraise threat to the achievement of personally meaningful goals when one fails in the performance" (Conroy et al., 2002, p. 239). Literature suggests that parental behaviors coupled with strict expectations of success contribute to the development of fear of failure in children (Ablard & Parker, 1997; Darling & Steinberg, 1993; Frost et al., 1990; Hewitt & Flett, 1991; Horney, 1950; Schmalt, 1982). Within academic environments, fear of failure is associated with decreased self-esteem and increased rates of depression, anxiety, pessimism, and shame (Atkinson, 1957; Baumgardner, 1991; Elliot & Church, 1997; Frost, Turcotte, Heimberg, Mattia, Holt & Hope; 1995; Martin & Marsh, 2003; McGregor & Elliot, 2005; Turner, Husman, & Schallert, 2002).

Shame and failure. Historically, researchers considered shame the main component within fear of failure constructs (Atkinson & Litwin, 1960; McGregor & Elliot, 2005; Smith & Smoll, 1990). For example, individual failure appraisals, thoughts of "being exposed" or an increased awareness of how significant others might view their performance outcomes, often triggers a shame response (Tangney, Burggraf, & Wagner, 1995; Tangney, et al., 1992). Specifically, a study by McGregor and Elliot (2005) found an association between parental shaming, fear of failure, and shame proneness. However, shame is not anchored to specific "failure" outcomes (Weiner, 1985), instead individuals experience it globally. Research indicates that individuals who measure higher on fear of failure also show an increase in globalizing shame experiences (McGregor & Elliot, 2005). For example, when an individual "fails" to achieve a goal, they view themselves as a complete failure and experience a sense of

global deficiency (Harder, 1995; Lewis, 2000; Turner & Waugh, 2007; Tangney et al., 1995; Turner, Husman, & Schallert, 2002; Weiner, 1985).

The globalizing nature of shame causes a decrease in self-esteem and can effect behavior, especially when failure appraisals are associated with valued goals (Lazarus, 1991; Lewis, 2000; Turner & Waugh, 2007). As an individual anticipates rejection or negative consequences from performance outcomes, coupled with high expectations of achievement, they become aversive to mistakes and even slight indications of failure (Flett et al., 1991; 1994); consequently, "shame motivates an avoidance response" among individuals who are sensitive to failure indications (Tangney, 1995, p. 1137). For this reason, individuals who measure high on fear of failure are prone to avoidance-oriented achievement goals and self-handicapping strategies, as a means to protect self-worth and maintain acceptance from important others (Atkinson, 1957; Covington, 1992; Elliot & Church, 1997; 2003; Pyszczynski & Greenberg, 1983).

Researchers describe self-handicapping as behavioral practices that increase the likelihood for failure. Subsequently, self-handicapping behaviors greatly impede academic success and examples include: cheating, procrastination, lowering expectations, and decreasing preparation, effort, and quality engagement (Baumgardner & Brownlee, 1987; Crocker & Park, 2003; Elliot & Harackiewicz, 1996; Elliot & Sheldon, 1997; Martin & Marsh, 2003; Pyszczynski & Greenberg, 1983; Tice, 1991; Turner & Pratkanis, 1993; Wicker, Payne, & Morgan, 1983). By sabotaging the probability of achievement success, individuals can readily blame something and/or someone else, besides themselves and their ability, for performance failures (Midgley & Urdan, 2001; Urdan, Midgley, & Anderman, 1998). In this way, self-handicapping acts

to protect the individual by managing the impression that others have of them (Kolditz & Arkin, 1982), which for perfectionists is imperative towards gaining acceptance.

Fear of failure and perfectionism. Perfectionists define failure as any outcome that falls short of a set goal (Neumeister, 2004), and believe that failure denotes personal flaw (Shafran et al., 2002). Frost et al. (1991) purports that concern with mistakes is a core issue in perfectionism. Subsequently, perfectionists are sensitive to discrepancy, which researchers define as the perception of inconsistency between an individual's actual and ideal performance outcomes (Flett et al., 1998; Wang, et al., 2007). Indications of performance discrepancies, reflect the very failure that perfectionists strive to avoid; therefore, discrepancy perpetuates maladaptive emotional consequences and is viewed as a negative feature of perfectionism (Ellis, 2002; Flett & Hewitt, 2002; Flett, Hewitt, & Cheng, 2008; Stoeber & Kersting, 2007). Several studies indicate that discrepancies between an individual's actual and ideal-self result in higher levels of depression, feelings of inferiority, shame, guilt, fear, agitation, and experiences of distress; discrepancy is also negatively associated with grade point average and self-esteem (Accordino, et al., 2000; Ashby & Rice, 2002; Blatt, 1995; Higgins, 1987; Higgins, Shah, & Friedman, 1997; Shafran et al., 2002).

When the attainment of a valued goal is threatened, discrepancy acts as an appraisal mechanism that signals the need for an increase in effort expenditure (i.e., this is especially true among perfectionists; Cervone, Kopp, Schauman, & Scott, 1994; Pyszczynski & Greenberg, 1987). As expectancy-value theory describes, individuals who believe they will be successful in their striving endeavors, will continue to exert effort despite any challenges and/or obstacles they may face (Bandura, 1977; Carver &

Scheier, 1981; Seligman, 1991). Pyszczynski and Greenberg (1987) commonly found depression as the result of individuals who resisted readjusting their standards despite discrepancies in reaching them. Although some researchers note that if a valued goal is successfully attained, future goals will then be re-calibrated to unattainable achievement standards (Shafran et al., 2002). Subsequently, perfectionists foster a cycle of negative emotional experiences due to the inevitable gap between ideal and actual achievement outcomes. This fact may explain why several clinical samples have found perfectionism to be associated with greater depressive symptoms (Enns & Cox, 1999; Hewitt et al., 1996) that stem from the perceived inability to reach excessive and externally defined goals (Alden, Bieling, & Wallace, 1994; Blatt, 1995; Burka & Yuen, 1983; Frost et al., 1990; Hewitt & Dyck, 1986; Pacht, 1984).

Perfectionists tend to utilize "all or none" thinking when evaluating their performance outcomes (Hollender, 1965). For example, perfectionists appraise achievement outcomes as either a complete success or a complete failure. These types of cognitions may provide insight into why perfectionists tend to over-generalize failure experiences (Besser, Flett, & Hewitt, 2004; Burns, 1980; Heimberg & Becker, 2002; Pacht, 1985). Additionally, perfectionistic cognitions tend to be highly critical, and involve excessive rumination over mistakes and any future prospects of being unsuccessful (Flett, et al., 1998; Flett, Madorsky, Hewitt, & Heisel, 2002; Frost & Henderson, 1991; Frost et al., 1997; Hewitt et al., 2002). When perfectionists fail to achieve a desired goal, they are prone to harsh self-criticism, which accounts for the relationships between high personal standards with depression, anxiety, and disordered eating (Dunkley et al., 2006; Dunkley, Zuroff, & Blankstein, 2006).

Harsh self-scrutiny, in particular, is central to perfectionistic cognitions due to excessive achievement standards, fear of failure, and perceived conditional approval (Besser et al., 2004; Blatt & Zuroff, 2002; Flett et al., 1998; Flett et al., 2002). Research indicates that harsh self-criticism orients students to internalize problems which may indicate why perfectionists struggle to experience satisfaction, and are prone to shame, depression, and negative emotional states, regardless of substantiated achievement outcomes (Besser et al., 2004; Blatt, 1974, 2004; Flett et al., 2002; Lyubomirsky, Caldwell, & Nolen-Hoeksema, 1998; Tomkins, 1987). This supports other research that links perfectionism and depression due to the constant barrage of negative self-talk that stems from failing to achieve high standards, guilt, fear of being viewed as less intelligent by significant others, and general feelings of mediocrity (Blatt, 1995; Frost et al., 1995; Soenens, Vansteenkiste, & Luyten, 2010).

Perfectionism literature suggests important differences between adaptive and maladaptive perfectionists surrounding achievement-related outcomes. For example, adaptive perfectionists are able to set realistic goals and experience satisfaction amid discrepancy of desired achievement-related outcomes (Terry-Short et al., 1995). However, researchers describe maladaptive perfectionists as individuals who demonstrate fear of mistakes, self-doubt, harsh self-scrutiny, and focus on performance discrepancies (Bieling et al., 2003; Dunkley et al., 2003; Enns & Cox, 1999; Frost et al., 1997; Hamachek, 1978; Hill et al., 1997; Parker, 1997; Parker & Stumpf, 1995; Shafran & Mansell, 2001; Stoeber & Rambow, 2007; Stumpf & Parker, 2000). Specifically, maladaptive perfectionists are believed to think and behave in ways that are oriented around failure avoidance (Blatt & Zuroff, 2002; Elliot & Thrash, 2004; Gilbert et al.,

2004; Slade & Owens, 1998); which in turn, makes them particularly prone to depression, anxiety, neuroticism, hopelessness, poor coping strategies, and procrastination behaviors (Alden et al., 1994; Blatt, Zuroff, Quinlan, & Pilkonis, 1996; Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998; Dunkley, Sanislow, Grilo, & McGlashan, 2006; Elliot & Thrash, 2004; Essau, 2008; Ferrari, 1992; Frost et al., 1990; Hamachek, 1978; Hewitt, Flett, & Ediger, 1996; Hewitt et al., 2002; Rice et al., 1998; Rice & Mirzadeh, 2000; Rice et al., 2006; Slade & Owens, 1998; Stumpf & Parker, 2000).

Perfectionists are prone to orient their behavior in ways to establish a sense of self-worth, obtain acceptance, and avoid failure (e.g., concealing mistakes; Adderhold-Elliot, 1989; Blankstein et al., 1993; Blatt, 1995; Flett, Hewitt, & Martin, 1995; Frost et al., 1995; Neumeister, 2004). As such, perfectionists have an intense aversion to failure, that is motivationally rooted in a desire to avoid shame and maintain acceptance of significant others (Atkinson, 1957). Fear of failure, coupled with perfectionism, promotes negative emotional and behavioral outcomes due to a highly critical focus towards demonstrating competence (Burns, 1980; Conroy et al., 2002). Therefore, it is imperative to further explore the relationship between failure appraisals and the perfectionism typologies. The Performance Failure Appraisal Inventory-Short Form (PFAI-S; Conroy et al., 2002) will be used in this study to investigate the cognitions and beliefs surrounding failure; and how these cognitions and beliefs impact academic achievement for adaptive and maladaptive perfectionists. Having a greater understanding of student failure appraisals will enable researchers and educators alike

to effectively support those who associate achievement-related failures with threatening and/or aversive consequences.

Achievement goals. "What you get by achieving your goals is not as important as what you become by achieving your goals." -Henry David Thoreau

Research has shown that the behaviors surrounding goal pursuits are fostered by varying motivational components (Maehr, 1989). These behaviors can be influenced by a driving need to "fulfill the task" (Carver & Scheier, 1985), the types of goals adopted (e.g., approach versus avoidance), and the cognitions surrounding goal pursuit (Bandura, 1977; Carver & Scheier, 1982; Dweck, 1986; Rotter, 1954). In regards to personal goals, Achievement Goal Theory describes the motivational elements that drive behavior in achievement-related settings. Achievement goals have been defined as, "the purposes for engaging in competence-relevant behavior" (Moller & Elliot, 2006, p. 308); and are "conceptualized as the purpose or cognitive-dynamic focus of task engagement, and the type of goal adopted is presumed to establish the perceptual set for how individuals interpret and experience achievement settings" (Elliot, McGregor, & Gable, 1999, p. 549). Therefore, it is important to further distinguish how goal orientations may vary among adaptive, maladaptive, and non-perfectionists.

Achievement goal theorists assert behavioral actions and cognitive experiences surrounding achievement-related activities are nested within the way an individual assesses personal skill level, interprets achievement when engaging in a task, and defines competence (Elliot, 1999). Competence is the core component in achievement goals, and researchers define competence by three standards: fully mastering a task (absolute), performance improvement and/or skill development (intrapersonal), and/or

attaining greater skills and/or knowledge relative to others (normative). Both absolute and intrapersonal competencies share many similarities, prompting researchers to look at them jointly (Elliot & McGregor, 2001).

Additionally, how an individual pursues competence will determine whether they are mastery or performance oriented (Dweck & Leggett, 1988; Pintrich, 2000). While both mastery and performance goals are grounded in the need for achievement, they each have distinctive standards for competence and subsequently, skill assessment is perceived in different ways. Mastery-oriented individuals develop competence by investing their efforts towards gaining expertise and fully mastering tasks; conversely, motivation for performance-oriented individuals stems from opportunities where they can demonstrate their competence. Dweck (1986) believes these differences in competence pursuit account for further behavioral and cognitive distinctions within each goal orientation. This theoretical assertion may explain why research thus far has been mixed in regards to high achieving students and achievement goal orientation (Ainley, 1993; Schunk & Swartz, 1993).

Mastery goal orientation centers on competency development via absolute/intrapersonal standards (Ames, 1992). For these individuals, personal growth, improvement, and other self-referential standards are the markers of achievement and success (Ames, 1992; Elliot & McGregor, 2001). Research indicates that mastery-oriented individuals tend to focus on task expertise, effective learning strategies, skill development, high competency, persisting through challenge and failure, and mastering information (Ames, 1992; Anderman & Young, 1994; Covington, 1992; Dweck & Leggett, 1988; Kaplan & Maehr, 1999; Nicholls, 1989; Nolen & Haladyna, 1990;

Schunk & Swartz, 1993). Additionally, research indicates mastery goals are associated with self-efficacy, self-regulated learning, positive affect and coping, and well-being (Elliot & Dweck, 1988; Elliot et al., 1999; Graham & Golan, 1991; Kaplan & Maehr, 1999; Meece & Holt, 1993). However, it should be noted that while numerous studies indicate that mastery orientation is a positive predictor of deep processing of academic material (Anderman, Griesinger, & Westerfield, 1998; DeBacker & Crowson, 2006; Elliot & McGregor, 1999; Elliot et al., 1999), it does not necessarily predict greater academic achievement over performance-oriented students (e.g. Hulleman, Schrager, Bodmann, & Harackiewicz, 2010).

Within the literature, there is a division among researchers on how performance-oriented individuals define competence. While some researchers maintain these individuals are motivationally oriented to demonstrate their competence (Ames, 1992; Kaplan & Maehr, 2007), other researchers assert motivation for performance-oriented individuals reflects a deep desire to surpass performance of their peers (Elliot, 2005). Regardless of these differences, there seems to be a consensus that individuals with performance goals are externally motivated and use social comparison as a marker for success. It is this focus on competency that drives behavior to minimize displays of incompetence through avoidance and maximize demonstration of high ability (Nicholls, 1984). Additionally, Elliot and associates (1999) found that shallow processing and disorganized studying were positive predictors of performance goal orientation. Although the literature is somewhat inconsistent regarding the general findings of those who are performance-orientated, researchers infer that when competence is low, performance goals are associated with negative emotional well-being, helplessness, low

self-esteem, and challenge avoidance (Elliott & Dweck, 1988; Harackiewicz & Elliot, 1993; Nicholls, 1976).

In 1997, Elliot and his colleagues further modified the achievement goal construct by dividing the performance construct into performance-approach and performance-avoidance dimensions (Elliot & Church, 1997). This change introduced valence as another significant aspect in the achievement goal construct, by representing the differing motivations for approach and avoidance behavior. Researchers believe approach/avoidance motivations are automatic and influence an individual's behavioral disposition to gravitate towards or away from tasks encountered in academic settings (Kaplan & Maehr, 1999). Once the performance construct was bifurcated, there became evident contrasts between performance-approach and performance-avoidance goals. For example, a study by Elliot (1999) found that behavioral motivation for approach-oriented individuals stemmed from the possibility of desirable events, whereas avoidance-oriented individuals were driven by the possibility of undesirable events. Additionally, the majority of negative consequences affiliated with performance goals are most closely related to performance-avoidant orientations (e.g., Elliot & Moller, 2003).

Performance-approach goals have both positive and negative valence aspects. These goals are grounded in the need to achieve (achievement motive), which has a positive valence; they are also grounded in the need to avoid failure (fear of failure motive), which has a negative valence. Performance-approach oriented individuals focus on the public demonstration of their skills and/or knowledge, and are associated with surface processing, performance aspirations, persistence, effort, and exam

performance (Barron & Harackiewicz, 2000; Elliot & Moller, 2003; Elliot et al., 1999). These goals are similar to mastery in that behavior is oriented around high achievement and increasing skill levels (Cury, Elliot, Da Fonseca, & Moller, 2006; Elliot & McGregor, 2001; McClelland, Atkinson, Clark, & Lowell, 1953; Trope, 1975); however, they differ because they are extrinsically monitored and competence is defined by normative standards (e.g., competence is evaluated by performing better than others). Subsequently, these evident contrasts make performance-approach goals very complex to define.

Similarly to performance-approach goals, performance-avoidance goals utilize normative standards to define competence (Elliot, 1997). However, performance-avoidant individuals seek to manage the impression others have of their abilities by eluding situations that may result in a negative outcome. These individuals often wish to avoid the appearance of incompetence and inability in comparison to their peers (Dweck & Bempechat, 1983); whereas, performance-approach individuals focus on attaining positive achievement outcomes by welcoming opportunities to demonstrate ability among their peers (Dweck & Bempechat, 1983; Elliot et al., 1999). Numerous studies indicate there is an association between individuals with performance-avoidance orientations and low achievement, self-handicapping behaviors, surface processing, disorganization, and anxiety (Cury et al., 2006; Elliot & McGregor, 2001; Elliot et al., 1999; Moller & Elliot, 2006; Midgley & Urdan, 2001; Urdan, 2004; Wolters, 2004). Moreover, performance-avoidance is a negative predictor of deep processing and exam performance (Elliot et al., 1999).

Elliot and McGregor (2001) recognized a divergence in the mastery goal construct, which only applied to performance goals previously. This change provided a distinction for mastery-approach and mastery-avoidance orientations. Individuals who are mastery-avoidant focus on avoiding incompetence, mistakes, and misunderstandings; whereas, those with mastery-approach orientations pursue competence development through task mastery. Elliot and McGregor (2001) described examples of avoiding incompetence that might be seen in the mastery-avoidance construct as: "striving to avoid misunderstanding or failing to learn course material, striving not to make an error in a business transaction, striving not to miss a free throw in a basketball game, striving not to forget what one has learned, and striving not to lose one's physical or intellectual capabilities" (p. 502). Furthermore, studies indicate that mastery-avoidance goals are associated with lower achievement performance, procrastination, disengagement, and anxiety (Sideridis, 2008; Van Yperen, Elliot, & Anseel, 2009). Despite the newness of the mastery-avoidance construct, there seems to be empirical evidence linking it to perfectionism (Elliot & McGregor, 2001). For this reason, the mastery-avoidance construct will be included in this study to further explore how this type of achievement goal functions in a learning context.

Achievement goals and perfectionism. Perfectionism orients individual behavior towards seeking achievement and/or high performance outcomes. Achievement goal theory provides clarity on how and why perfectionists are motivated to engage in such achievement-related endeavors (Hanchon, 2010, 2011; Kaplan & Maehr, 2007). For example, both adaptive and maladaptive perfectionists diligently strive towards high standards of academic achievement (Elliot & Thrash, 2001);

however, they seem to do so in markedly different ways. Hamacheck (1978) denoted that adaptive and maladaptive perfectionists had "not only a difference in a style for working, but also a difference in a style for thinking about the work to be done" (p. 28). Researchers suggest motivation for maladaptive perfectionists stems from an underlying fear of failure (Hewitt & Flett, 1991), which may indicate a proclivity towards performance goal adoption (Speirs-Neumeister & Finsch, 2006). However, Elliot and McGregor (2001) suggest that the kinds of strivings that perfectionists make to avoid mistakes are ideal examples of mastery-avoidance orientation. Adaptive perfectionists seem to set more reasonable goal standards, possibly indicating an association with mastery goals; although, research has yielded mixed results in regards to the relationship between mastery goals and student achievement (see Kaplan & Maehr, 1999). Interestingly, a study by Hanchon (2011) found that there were no significant differences between adaptive and maladaptive perfectionists on mastery goal orientation; however, when compared on a measure of psychological symptomology only adaptive perfectionists were associated with a profile of emotional well-being.

Achievement goals are important to investigate because they allow greater insight into the motivational dynamics behind competence-related behavior. Effort, persistence, learning strategies, and affect are all impacted differently based on the type of achievement goal adopted (Dweck, 1986; Elliot, 1997; Nicholls, 1984; Schutz & Pekrun, 2007). Moreover, adaptive and maladaptive perfectionists seem to differ in regards to achievement expectations and underlying motivation (Hamachek, 1978; Slade & Owens, 1998). Therefore, the Achievement Goal Questionnaire-Revised (AGQ-R) will be used to measure the four achievement goal constructs: mastery-

approach, mastery-avoidance, performance-approach, and performance-avoidance (Elliot & Murayama, 2008).

Achievement emotions. "Striving to better, oft we mar what's well." -William Shakespeare

The desire to understand the nature of emotions has consistently piqued the interest of psychologists and researchers alike (Clore, Ortony, & Foss, 1987; Frijda, 1988; Lazarus, 1991; Ortony, Clore, & Collins, 1988; Russell, 1991; Scherer, 1984; Weiner, 1985). Historically, researchers have described emotions as multidimensional, comprised of biological responses and socially constructed experiences, with motivational, expressive, and cognitive components (Baumeister & Bushman, 2007; Helm, 2009; Panksepp, 2000; Pekrun & Stephens, 2010; Robinson, 1995; Scherer, 2000; Schutz, Hong, Cross, & Osbon, 2006). Emotions function as a means to provide both cues and informational elements to individuals (e.g., threat awareness, enjoyment, self-assessment; Constans, 2001; Morris, 1992; Schwarz, 2001; Schwarz & Clore, 1983, 1988); and "exist for the sake of signaling states of the world that have to be responded to, or that no longer need response and action" (Frijda, 1988, p. 354). Further, emotions are believed to influence academic achievement in numerous ways, including intrinsic motivation, cognitive processing, and learning strategies (Mega, Ronconi, & DeBeni, 2014). Perhaps this is why Schutz and Lanehart (2002) asserted that emotions "are intimately involved in virtually every aspect of the teaching and learning process and, therefore, an understanding of the nature of emotions within the school context is essential" (p. 67).

As previously discussed, attribution theory can be used to provide a framework for understanding the emotional experiences individuals incur from achievement-related endeavors (Weiner, 1985). People experience achievement emotions uniquely, because they are generated from individual appraisals of performance (i.e., success vs. failure) and the value that was personally ascribed to the task (Scherer, 1999). While a general understanding of emotions existed within literature, it was not until the early 1990s that researchers began to investigate the role they played in academic environments. From these inquiries, research indicated that emotions are deeply embedded within the learning context and maintain a "high degree of domain specificity" (Goetz, Preckel, Pekrun, & Hall, 2007). Further, evidence emerged that there was a strong relationship between emotions, cognitions, and motivation, and this relationship had a significant impact within the realm of academia (Elliot & Pekrun, 2007; Izard, Stark, Trentacosta, & Schultz, 2008; Martin, 2001; Raver, 2002; Rusting, 1998; Storbeck & Clore, 2012).

Several studies have indicated that emotions can affect motivation in terms of producing action and goal pursuit (Frijda, Kuipers, & ter Schure, 1989; Pekrun, Elliot, & Maier, 2006, 2009; Pekrun, Frenzel, Goetz, & Perry, 2007; Turner & Waugh, 2007; Wicker et al., 1983). Emotions act as a catalyst, allowing individuals to move towards a desired goal or away from an undesired goal (Ford, 1992). Subsequently, Maes and Gebhardt (2000) describe emotions as, "the energizing components of behavior" (p. 355). However, emotional experiences can also be a byproduct of goal pursuit. For example, when an individual obtains a goal, positive emotions manifest (Frijda, 1988). This fact may indicate that emotions influence more than just motivation within individuals.

Research over the last two decades indicates that emotion can also influence memory (Baddeley, 2012; Davidson, 2006; Otani et al., 2012), learning strategies (Mega et al., 2014), failure interpretation (Tracy & Robins, 2007; Turner & Waugh, 2007; Weiner, 2008), learning environment perception (Anderman, 2002; Turner et al., 2002), achievement outcomes (Beedie, Terry, & Lane, 2000; Catanzaro, 1996; Haines, Norris, & Kashy, 1996; Lane, Lane, & Firth, 2002), and the kinds of performance standards an individual tends to adopt (Cervone, et al., 1994). Pekrun (2006) even asserted that "whether hope or anxiety is experienced more intensively may depend on individual achievement goals, performance-approach goals facilitating hope, and performance-avoidance goals contributing to anxiety" (p. 321). In this regard, emotional experiences greatly contribute to achievement and the overall academic success of students (Pekrun et al., 2009).

However, it is important to discern how the types of emotions (e.g., positive versus negative) experienced within learning environments differ in regards to their impact on student academic achievement. Specifically, positive emotional experiences predict greater academic achievement, whereas some literature asserts there is an inverse relationship between negative emotional experiences and achievement (Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011). Positive emotions (e.g., joy, pride, and hope) "help to envision goals and challenges, open the mind to thoughts and problem-solving, protect health by fostering resiliency, create attachments to significant others, lay the groundwork for individual self-regulation, and guide behavior of groups, social systems, and nations" (Pekrun, Goetz, Tiz, & Perry, 2002a, p. 149). Research suggests that positive emotional experiences are positively correlated to student performance,

persistence, and effort within learning contexts (Pekrun et al., 2002a, 2002b; Pekrun et al., 2007) and are associated with enhancing academic competence, interest, approach-related activities, and achievement (Davidson, Jackson, & Kalin, 2000; Fredrickson, 2001; Fredrickson & Losada, 2005).

Conversely, researchers define negative emotions as "intense, devastating, and difficult to handle emotions evoked in situations of failure" (Bidjerano, 2010; p. 319) and some examples include: guilt, shame, and embarrassment. Negative emotions have been associated with disruption of effort and interest on tasks, and poorer performance (McLeod, 1994; Turner, Thorpe, & Meyer, 1998, Zeidner, 1998). Moreover, experiencing negative emotions leads to a sense of dissatisfaction and further effort expenditure (Schwarz & Bohner, 2001). This negative chain of events may be due in part because environmental signals that indicate a discrepancy between an individual's current standing and their valued goals activate negative emotions (Carver & Scheier, 1990; Cervone et al., 1994). Interestingly, negative emotions are not always associated with negative outcomes. Research has shown that negative emotions (e.g., frustration and anxiety) may either increase or decrease student engagement (Ainley, Corrigan, & Richardson, 2005; Elliot & Pekrun, 2007; Pekrun et al., 2002b; Pekrun et al., 2007; Wicker et al., 1983). For instance, Brown and Nelson (1983) studied the effects of test anxiety on performance outcomes in perfectionists. The results indicated that despite inherent test anxiety, achievement outcomes were related to perfectionistic standards of excellence (i.e., increased student engagement).

Academic emotions. Due to the gap in literature surrounding the significance of emotions within an academic context, Pekrun and associates began to investigate how

achievement-related emotions impacted students (Pekrun, 1992a, Pekrun 1992b, Pekrun, 2000, Pekrun & Freese, 1992; Pekrun et al., 2011). Academic emotions are defined as "emotions related to either achievement-related activities (e.g., enjoyment and boredom with learning) or achievement outcomes" (e.g., success and failure; Pekrun et al., 2011, p. 37). Achievement emotions present in different academic settings: within the classroom context, while studying, and during examinations (Pekrun et al., 2011) and can be further divided into either activity emotions or outcome emotions. Activity emotions can be defined as those that occur in the present moment, stem from the perceived task value, and are comprised of enjoyment, anger, frustration, and boredom (Pekrun, 2006; Pekrun et al., 2006; Pekrun et al., 2011). For example, if an activity is positively valued and viewed as personally controllable then the individual will experience enjoyment, which is imperative for engagement (i.e., flow experiences). Conversely, if controllable activities are negatively valued, then anger will result. Frustration emerges when an individual perceives little to no controllability for any given activity. Finally, boredom ensues when an individual perceives little value for an activity, be it positive or negative.

While activity emotions present in real time, outcome emotions deal with an individual's emotional experiences surrounding outcome expectancies (i.e., what they think will happen) or outcome realities (i.e., reflecting on a test grade; Pekrun et al., 2005). Additionally, the amount of value placed on the success and/or failure of an activity will impact the degree to which an outcome emotion is experienced (Pekrun, 1992b). Therefore, individuals experience outcome emotions as either prospective or retrospective. Prospective emotions include anticipatory joy, anticipatory relief, and

anxiety (Pekrun et al., 2005). Conversely, individuals will experience retrospective emotions after obtaining feedback on an achievement outcome. Some examples of retrospective emotions include: experiencing joy after success, experiencing sadness and/or frustration after failure, experiencing disappointment when success was expected, and experiencing relief when failure was expected but did not occur (Pekrun et al., 2002b; 2006; 2009; 2011).

Topic emotions. Researchers have also begun to investigate the intensity of emotions that students and teachers experience within academic settings (Lombardi & Sinatra, 2012; Sinatra, Broughton, & Lombardi, 2014). Moreover, some researchers study the connection between specific instructional topics and the emotions that are elicited (Broughton, Sinatra, & Nussbaum, 2013; Lombardi & Sinatra, 2012). Topic emotions are very distinctive emotional experiences that are elicited by specific instructional topics and/or content. For example, a student might find overall enjoyment from their history class, but experience negative emotions when a controversial topic is taught (Broughton et al., 2013). The topic emotions scale was selected for this study, because it will measure the intensity of specific emotions that an individual experiences while being primed to think about a specific topic.

Achievement emotions and perfectionism. Perfectionists display a markedly high emotional commitment in their efforts towards successful achievement outcomes (DiBartolo, Li, & Frost, 2008; Dunkley & Blankstein, 2000; Hamachek, 1978; Hewitt, Habke, Lee-Baggley, Simon, & Flett, 2008; O'Connor, O'Connor, & Marshall, 2007; Silvia & Warburton, 2006). In doing so, perfectionists tend to struggle with emotional regulation and accurate perception of educational outcomes; specifically, they are

highly self-critical and are prone to overgeneralize their academic failures (Ferrari, 1992; Frost et al., 1990; Hewitt & Flett, 1991; Hewitt et al., 1991; Sorotzkin, 1998). Shafran purported that the inability to experience positive emotions after achieving a successful outcome is an "important maintenance mechanism" in clinical perfectionism (Riley & Shafran, 2005; Shafran et al., 2002; Shafran, Cooper, & Fairburn, 2003). As such, evidence suggests that perfectionists tend to experience self-conscious emotions like embarrassment, shame, and guilt, and are prone to harsh self-criticism (Dunkley et al., 2003; Tangney, 2002).

Perfectionism ideals orient individuals to continuously monitor and self-evaluate achievement progress; engaging in these types of "checking" practices (i.e., cognitive and/or behavioral) makes perfectionists highly sensitive to performance discrepancies. In this way, maladaptive perfectionists are emotionally vulnerable each time they sense a gap between "the actual and the ideal" outcome (Ellis, 2002; Frost et al., 1990; Shafran et al., 2002). According to Hewitt, Flett, and Ediger (1996), "perfectionistic behavior can generate stress that stems, in part, from the tendency for perfectionists to evaluate stringently, focus on negative aspects of performance, and experience little satisfaction" (p. 276). Another study found that perfectionists are particularly vulnerable to stress due to their excessive striving behaviors and outcome expectations (Flett et al., 1995). Stress, in turn, causes emotional reactions (e.g., depression, anxiety, anger, etc.), somatic experiences (Hammen, Davila, Brown, Ellicott, & Gitlin, 1992; Sapolsky, 2007; Watson, 2000), and an increase of psychopathology over time (Dunkley et al., 2003).

While all perfectionists are vulnerable to stress, failure indications, and self-criticism (Blatt, 1995; Enns & Cox, 1999; Frost et al., 1990; Hewitt & Flett, 1993), research indicates marked differences between the emotional experiences of adaptive and maladaptive perfectionists. For example, adaptive perfectionists "approach tasks with a confident desire for mastery and expectation for improvement" (Dixon et al., 2004, p. 96), and "tend to enhance their self-esteem, rejoice in their skills and appreciate a job well-done" (Hamachek, 1978, p. 27). Additionally, they are associated with general feelings of satisfaction, greater academic efficacy, self-assessment, and overall healthy psychological adjustment (Ashby & Rice, 2002; Dixon et al., 2004; Grzegorek et al, 2004; Hamachek, 1978; Mitchelson & Burns, 1998; Parker, 1997; Rice & Dellwo, 2002; Rice & Mizradeh, 2000; Rice et al., 1998, 2005; Slade & Owens, 1998; Stoeber & Rambow, 2007; Wang et al., 2007).

Conversely, maladaptive perfectionists are associated with a host of negative emotional attributes (Blatt, 1995; Burns, 1980; Flett & Hewitt, 2002; Hamachek, 1978; Hewitt & Flett, 1991; Rice & Ashby, 2007). Hamachek (1978) purported that maladaptive perfectionists report "feeling anxious, confused, and emotionally drained before a new task is even begun" (p. 28). Perfectionism literature supports this assertion, as several studies indicate maladaptive perfectionists experience high levels of negative affect (e.g., guilt, anger, dissatisfaction, and general mood disturbances), low self-esteem, academic performance concerns, anxiety-based disorders, and depression (Ashby, Rice, & Martin, 2006; Bieling et al., 2003; Dunkley, Zuroff, & Blankstein, 2006; Frost et al., 1993, 1997; Hewitt & Flett, 1991; Molnar, Reker, Culp,

Sadava, & DeCourville, 2006; Parker, 1997; Rice & Dellwo, 2002; Rice et al., 2005; Shafran & Mansell, 2001; Wheeler, Blankstein, Martin, McCabe, & Beiling, 2011).

Research clearly indicates the relationship, albeit a very complex one, between emotions and cognitions, beliefs, motivation, and behavior (Ellis, 1988; Ellis & Dryden, 1997; Izard et al., 2008; Otani et al., 2012). Within the realm of achievement settings, emotions greatly influence psychological health, motivation, and performance (Pekrun, 2006; Puente-Diaz, 2012). Perfectionists, in particular, anchor their self-worth to standards of unrealistically high achievement outcomes. Moreover, researchers suggest that the self-critical nature of perfectionists makes them particularly susceptible to negative emotional experiences like shame, embarrassment, and guilt (Dunkley et al., 2003; Tangney, 2002). With such a paucity of literature regarding the relationship between achievement emotions and perfectionism, it is important to begin to tease apart the complex relationship between perfectionists and their emotional responses within classroom settings. Therefore, the Topic Emotions scale will be used to measure the emotional experiences of students as they think about their most difficult class in their degree program (Broughton et al., 2013).

Summary

Within academic literature, the topic of perfectionism has emerged as an important indicator of student cognitions, motivational orientations, and behavior. While there is a consensus among researchers of the general characteristics that comprise perfectionism, less is known about the effects of these specific perfectionism typologies within the classroom and their subsequent impact on achievement motivation and emotional well-being. Therefore, my study attempts to address these gaps and

expand on previous perfectionism research by looking at distinct typologies of perfectionists within educational contexts. By attempting to further distinguish the differences between adaptive and maladaptive perfectionists, researchers will be able to answer the question of whether there are conditions under which perfectionism is not a threat to achievement and/or mental health. These specific motivational and emotional well-being variables have not been studied together previously, and are important to understanding perfectionism in the classroom. This will contribute to the foundational understanding of how achievement motivation and emotional well-being variables differ among adaptive and maladaptive perfectionists. Based on previous perfectionism research, I designed the following research questions to answer a gap in the literature:

1. *In what ways are facets of perfectionism (e.g., high standards and discrepancy) related to unconditional self-acceptance, failure appraisal, achievement goal orientation, and academic emotions?*
2. *In what ways do adaptive perfectionists, maladaptive perfectionists, and non-perfectionists significantly differ on unconditional self-acceptance, failure appraisal, achievement goal orientation, and academic emotions?*

As previously discussed, unconditional self-acceptance reflects an individual's capacity to accept themselves fully (i.e., acknowledging and embracing both their strengths and weaknesses; Ellis, 1977). On the basis of previous research, it is expected that the positive feature of perfectionism (e.g. high standards) and adaptive perfectionists will be associated with unconditional self-acceptance and positive emotions because serves as an indication of happiness and satisfaction (Chamberlain & Haaga, 2001); while the maladaptive facet of perfectionism (e.g., discrepancy) will show a weaker relationship to unconditional self-acceptance (Flett et al., 2002).

Furthermore, it is anticipated that the adaptive perfectionist cluster will show higher "approach" achievement goal orientations and positive academic emotions than the maladaptive cluster. Finally, although literature has been somewhat mixed in regards to non-perfectionists, it is anticipated that the study results will yield support for Dixon et al. (2004) findings that non-perfectionists show similar profiles of emotional well-being as the adaptive perfectionist group. Moreover, it is expected that maladaptive perfectionists will be associated with achievement goals that have an avoidance valence (e.g., mastery-avoidance, performance-avoidance), because maladaptive perfectionists have been associated with error avoidance behaviors due to their fear of failure (Flett et al., 2003).

Discrepancy is a defining feature of maladaptive perfectionists and denotes the individual's perception of gaps between their performance outcomes and their ideal standards of achievement (Bieling et al., 2003; Parker, 1997; Slaney & Ashby, 1996). As such, research purports that maladaptive perfectionists are driven by a fear of failure and become emotionally vulnerable when they sense discrepancy (Ellis, 2002; Frost et al., 1990; Shafran et al., 2002; Slade & Owens, 1998) and experience dysfunctional feelings (e.g., depression, anxiety, hopelessness; Accordino et al., 2000; Frost et al., 1990; Rice & Slaney, 2002). Therefore, it is expected that the discrepancy subscale and maladaptive perfectionists will be associated with higher levels of failure appraisal and negative emotions.

CHAPTER THREE

Methodology

The purpose of the current study is two-fold: to demonstrate the relationship of the positive and negative features of perfectionism with achievement-related and emotional well-being variables and to establish how the typologies of perfectionism differ on achievement-related and emotional well-being constructs.

Design

A causal comparative design was used to investigate differences among different types of perfectionists. Participants constituted a convenience sample drawn from the College of Education and the Honor's College. Pearson correlation coefficients were examined to address research question #1. In research question #2, perfectionism type (e.g., adaptive perfectionists, maladaptive perfectionists, non-perfectionists) is the independent variable. Unconditional self-acceptance, failure appraisal, achievement goals, and academic emotions are the dependent variables.

Participants

A single sample drawn from the University of Oklahoma was used in this study that included a wide variety of students with various statuses (e.g., freshman – graduate students). A total of 401 college students from the University of Oklahoma-Norman participated in this study. However, of those 401 students, only 354 provided information on the variables included in the measure. All subsequent analysis of the data utilized that sample subset. Prior to beginning the study, an a priori power analysis was performed using G*Power 3.1 (Erdfelder, Faul, & Buchner, 1996) for sample size estimation ($\alpha = .05$, power = 0.80, and a moderate effect size of $r = 0.30$). Cohen (1988) suggested the following conventional values for effect sizes: small, $r = .10$; moderate, r

= .30; and large, r = .50, and these guidelines are used in this study. The resulting sample size was substantial enough to have adequate statistical power.

The sample was predominately female (75%), white (76%), with the largest majority of students reporting their grade level as either seniors (37%) or juniors (23%). Ages ranged from 18 to 44. A chi-squared analysis was performed and no significant relationship was found between gender and perfectionism cluster group membership, χ^2 (2, N = 349) = 3.58, p = .17. However, the chi-square analysis performed on grade level and perfectionism cluster group membership did show a significant relationship, χ^2 (8, N = 349) = 16.72, p = .03. This significance is likely due to the fact that freshman were over-represented in the maladaptive perfectionism cluster. Summaries for demographic characteristics of participants are in Table 1.

Prior to the commencement of the study, standard procedures were employed and approved by the University of Oklahoma's Institution Review Board (IRB) for the protection of human research participants. Potential participants were recruited either in-person or through the University of Oklahoma's email system. Some of the classes the students were recruited from offered extra credit for research participation. Individuals whose classes did not offer extra credit for research participation, instead had the opportunity to win one of ten $20.00 gift cards to Amazon.com. All participants received an email inviting them to participate in the study, which also contained an information sheet outlining the details of the study, and the link to the online surveys housed in Qualtrics. Consenting participants received access to the digital surveys. To negate any potential ordering effects, Qualtrics was set up to arrange the surveys randomly.

Table 1.
Demographic Characteristics of Sample

Demographic Characteristics (*N* = 349)	N	%
Gender		
Male	86	24.6
Female	263	75.4
Age		
18-21	274	81.3
22-25	48	11.9
26-29	14	3.3
30-34	7	1.6
35-39	4	0.8
40-44	2	0.4
Status		
Freshman	74	21.1
Sophomore	54	15.4
Junior	81	23.1
Senior	129	36.9
Graduate Student	12	3.4
Ethnicity		
American Indian/Alaska Native	16	4.0
Asian	23	5.7
Black/African American	6	1.5
Hispanic/Latino	17	4.2
Native Hawaiian/Other Pacific Islander	1	0.2
White	307	76.4
Other	7	1.7

Instruments

Short Form of the Revised Almost Perfect Scale (SAPS; Rice et al., 2014; Slaney et al., 2001). This eight item Likert-style instrument is a self-report measure that captures adaptive dimensions of perfectionism (e.g., high standards) and maladaptive dimensions of perfectionism (e.g., discrepancy). The high standards subscale measures personal standards and performance expectations (4 items; α =.86; e.g., "I have a strong need to strive for excellence"). The maladaptive perfectionism subscale, discrepancy (4 items; α = .84; e.g., "Doing my best never seems to be

enough"), measures "the perception that one consistently fails to meet the high standards that one has set for oneself" (Slaney et al., 2002, p. 69). Responses range from 1 – "strongly disagree" to 6 – "strongly agree." This instrument is located in Appendix A.

Unconditional Self-Acceptance Questionnaire (USAQ; Chamberlain & Haaga, 2001). Ellis (1977) defines unconditional self-acceptance as someone who, "fully and unconditionally accepts themselves whether or not they behave intelligently, correctly, or competently and whether or not other people approve, respect, or love them" (p. 101). This instrument is derived from rational-emotive behavior therapy and measures the amount of self-acceptance an individual experiences that is not dependent on some type of evaluative criteria. This 20-item Likert self-report instrument measures responses ranging from 1 – "almost always untrue" to 6 – "almost always true." Sample items include: "I believe that I am worthwhile simply because I am a human being" and "I feel I am a valuable person even when other people disapprove of me." Total scores range from 20 to 140, with higher totals indicating greater levels of unconditional self-acceptance. The original version of this measurement had a moderate internal consistency (α =.72), but this figure was improved through rewording three question items (α =.86; Chamberlain & Haaga, 2001). As such, nine questions are scored directly (e.g., "I believe that I am worthwhile simply because I am a human being"), while eleven items are reverse-scored (e.g., "To feel like a worthwhile person, I must be loved by the people who are important to me"). The Cronbach's alpha internal consistency reliability coefficient for this sample was .79. This instrument is located in Appendix B.

Performance Failure Appraisal Inventory – Short Form (PFAI-S; Conroy et al., 2002). Conroy (2001) created the Performance Failure Appraisal Inventory (PFAI) to measure the various motivational components associated with fear of failure. The five item Likert-style short form measures beliefs that failure is associated with the following subcomponents include: fear of devaluing one's self-estimate (e.g., "When I am failing, I am afraid that I might not have enough talent"), fear of having an uncertain future (e.g., "When I am failing, it upsets my 'plan' for the future"), fear of important others losing interest (e.g., "When I am not succeeding, people are less interested in me"), fear of upsetting important others (e.g., "When I am failing, important others are disappointed"), and fear of experiencing shame and guilt (e.g., "When I am failing, I worry about what others think about me"). Responses range from 1 – "strongly disagree" to 5 – "strongly agree." The average scores from the participant responses form a fear of failure index. Additionally, the PFAI-S is highly correlated with the original, long-form measure (r =.92; Conroy et al., 2002). This instrument appears psychometrically sound and has shown both construct validity and external validity evidence (Conroy, Coatsworth, & Kaye, 2007; Conroy & Elliot, 2004; Conroy, Elliot, & Hofer, 2003). The PFAI-S shows acceptable internal consistency for this sample (>.75). This instrument is located in Appendix C.

Achievement Goal Questionnaire-Revised (AGQ-R; Elliot & Murayama, 2008). Achievement motivation is defined as the "energization and direction of competence-based affect, cognition, and behavior" (Elliot, 1999, p. 169). The Achievement Goal Questionnaire-Revised (AGQ-R) is an updated self-report measure based off of Elliot and McGregor's (2001) original 2x2 approach-avoidance hierarchical

model. The AGQ-R added "explicit normative content" test items to the performance-based goals test items, which enhanced the reliability of the Cronbach alphas of the performance-avoidance goals from α =.83 (in the previous AGQ version) to α =.94 (Elliot & Marayura, 2008). The AGQ-R is a 12-item Likert-style instrument that measures goals in course-specific context. Elliot and McGregor (2001) created the items to capture the four dimensions of achievement goal theory, which include: mastery-approach (MAp), mastery-avoidance (MAv), performance-approach (PAp), and performance-avoidance (PAv).

Responses range from 1 – "almost always untrue" to 6 – "almost always true." Mastery-approach goals measure one's focus on attaining task-based or intrapersonal competence (3 items; α =.79; e.g., "My goal is to learn as much as possible"). The mastery-avoidance subscale measures one's focus on avoiding task-based or intrapersonal incompetence (3 items, α =.78; e.g., "My goal is to avoid learning less than it is possible to learn"). Performance-approach goals measure one's focus on attaining normative competence (3 items; α =.88; e.g., "My goal is to perform better than the other students"). The performance-avoidance subscale measures one's focus on avoiding normative incompetence (3 items; α =.88; e.g., "My goal is to avoid performing poorly compared to others"). The four AGQ-R subscales show acceptable internal consistency (>.75). This instrument is located in Appendix D.

Topic Emotions Survey (Broughton et al., 2013). Researchers believe emotions experienced in achievement settings encompass both trait and state emotions (Pekrun et al., 2005). In this regard, the pervasiveness and context of the emotional experiences matter. For example, continually experiencing a sense of pride would be

regarded as a trait emotion, whereas pride experienced right after receiving a high grade on an exam would fall under the realm of a state emotion. Previous researchers have modified emotion scales to provide a retrospective assessment of student emotions from a single course (Pekrun et al., 2000). Following suit, in this present study, the wording was changed in the instrument to capture retrospective state emotions experienced by students. Specifically, the directions cued the participants to think about the most difficult class of their degree program while they rated the strength of each emotion. The present study used this approach, because research indicates that emotions are domain-specific (Goetz et al., 2006) and deeply embedded within the learning context (Goetz et al., 2007).

The Topic Emotions survey was used in this study to measure retrospective state emotions elicited from actively thinking about the most difficult class of the participant's degree program. The Topic Emotions survey is a Likert self-report instrument that measures responses ranging from 1 – "not at all" to 5 – "very strong." The scale is comprised of sixteen individual emotions and assesses both positive (8 items; α =.93; e.g., hopeful, enjoyment, satisfaction, confidence, etc.) and negative emotions (8 items; α =.89; e.g., anxious, frustration, shame, disappointment, etc.). This instrument is located in Appendix E.

Participant demographics. A demographic survey was used to obtain the following information: student grade level, age, gender, and ethnicity. This instrument is located in Appendix F.

CHAPTER FOUR

Results

Preliminary Analysis

Data were screened for normality, specifically skewness and kurtosis, using SPSS. The skewness and kurtosis of each variable and/or construct measure are summarized in Table 2. The results demonstrated that all variables displayed a skewness value below 1.5, which according to Lomax (2007) is acceptable. Additionally, cluster analysis is highly affected by outliers so I checked the mean z-scores for values that were more than three standard deviations from the mean. Based on screening for extreme scores ($|z| > 3.0$), one score from the high standards subscale was an outlier. The outlier score was deleted from further analysis. Therefore, from this analysis the assumption of normality is reasonably met.

Table 2.
Skewness and Kurtosis of each of the Perfectionism, Achievement Goal, Topic Emotion Measures and the overall Self-Acceptance and Failure Appraisal Measures.

Variable/Construct Measure	Skewness	Kurtosis
Short Form Almost Perfect Scale		
High Standards	-.929	.032
Discrepancy	.241	-.727
Achievement Goal Questionnaire		
Mastery-Approach	-.789	.760
Mastery-Avoidance	-.495	.085
Performance-Approach	-1.134	1.235
Performance-Avoidance	-.923	.548
Topic Emotions		
Positive Emotions	.117	-.596
Negative Emotions	.066	-.775
Self-Acceptance Overall Mean Score	.281	-.163
Failure Appraisal Overall Mean Score	-.367	.366

The means, standard deviations, and Cronbach's alpha for each scale included in the study are reported in Table 3. Internal consistency coefficients for all measures were at sufficiently high levels and the scores ranged from .75 to .93. Nunnally (1978) suggest that .70 and higher should be the minimum cutoff for acceptable levels of internal consistency. A correlation matrix that includes each scale and subscale used in this study can be found in Table 4.

Table 3.
Descriptive Statistics for Scale and Subscale Scores

Scales/Subscales	*M*	*SD*	α
Short Form Almost Perfect Scale			
High Standards	5.39	0.67	0.86
Discrepancy	3.59	1.14	0.84
Unconditional Self-Acceptance	3.41	0.57	0.79
Performance Failure Appraisal	3.58	0.76	0.75
Achievement Goal Questionnaire			
Mastery-Approach	4.98	0.83	0.79
Mastery-Avoidance	4.29	1.10	0.78
Performance-Approach	4.80	1.09	0.88
Performance-Avoidance	4.58	1.23	0.88
Topic Emotions			
Positive Emotions	2.91	0.87	0.93
Negative Emotions	2.84	0.86	0.89

Table 4.
Correlation Matrix for Scales and Subscales

	High Standards	Discrep	Self-Accept	Failure	Mastery Approach	Mastery Avoid	Perform Approach	Perform Avoid	Positive Emotions	Negative Emotions
High Standards	—	0.24**	- 0.63**	0.26**	0.42**	0.19**	0.42**	0.26**	0.20**	- 0.05
Discrep	0.24**	—	- 0.41**	0.43**	0.05	0.09	0.12*	0.21**	- 0.12*	0.27**
Self-Accept	- 0.26**	- 0.41**	—	- 0.52**	- 0.04	- 0.13*	- 0.35**	- 0.41**	- 0.02	- 0.16**
Failure	0.26**	0.43**	- 0.52**	—	0.03	0.15**	0.34**	0.39**	- 0.06	0.21**
Mastery Approach	0.42**	0.05	- 0.04	0.03	—	0.44**	0.33**	0.14*	0.36**	- 0.22**
Mastery Avoid	0.19**	0.09	- 0.13*	0.15**	0.44**	—	0.30**	0.45**	0.20**	- 0.14**
Perform Approach	0.42**	0.12*	- 0.35**	0.34**	0.33**	0.30**	—	0.74**	0.12*	0.01
Perform Avoid	0.26**	0.21**	- 0.41**	0.39**	0.14*	0.45**	0.74**	—	- 0.01	0.12*
Positive Emotions	0.20**	- 0.12*	- 0.02	- 0.06	0.36**	0.20**	0.12*	- 0.01	—	- 0.59**
Negative Emotions	- 0.05	0.27**	- 0.16**	0.21**	- 0.22**	- 0.14**	0.01	0.12*	- 0.59**	—

Research Question 1

The first research question in this study was: *In what ways are the facets of perfectionism (e.g., high standards and discrepancy) related to self-acceptance, failure appraisal, achievement motivation, and topic emotions?* Pearson product-moment correlation coefficients were used to examine the relationship between the subscales of the Short Form of the Revised Almost Perfect Scale (e.g., high standards and discrepancy) and each achievement motivation and emotional well-being variable. The correlations among the various measures are summarized in Table 5.

Table 5.
Correlations Between Perfectionism and Self-Acceptance, Failure Appraisal, Achievement Motivation, and Topic Emotions

Variable	1	2
1. High Standards	–	0.24
2. Discrepancy	0.24	–
3. Self-Acceptance	-0.26	-0.41
4. Failure Appraisal	0.26	0.43
5. Mastery Approach	0.42	0.05
6. Mastery Avoidance	0.19	0.09
7. Performance Approach	0.42	0.12
8. Performance Avoidance	0.26	0.21
9. Positive Emotions	0.20	-0.12
10. Negative Emotions	-0.05	0.27

In examining relations between the positive aspect of perfectionism (e.g., high standards) and the various scales used in this study, the results indicated a negative correlation between high standards and unconditional self-acceptance (r = - 0.26). High

standards was also positively correlated with fear of failure (r = .26), and each achievement goal subscale: mastery approach (r = .42), mastery avoidance (r = .19), performance approach (r = .42), and performance avoidance (r = .26). Collectively, positive emotions were associated with high standards scores (r = .26). Additionally, high standards scores were associated with each of the positive emotions: hopeful (r = .15), happy (r = .14), interested (r = .20), enjoyment (r = .15), satisfaction (r = .15), proud (r = .20), excited (r = .17), and confident (r = .11).

The results were mixed in regards to the relationship between high standards and each negative emotion. The high standards score was positively correlated with anxious (r = .11); and negatively correlated with confused (r = -.14). However, high standards scores indicated no association with the following negative emotions: hopeless (r = -.07), angry (r = -.04), frustrated (r = .01), shame (r = -.02), sad (r = -.03), or disappointed (r = -.06). Collectively, there was no association found between negative emotions and scores on high standards (r = -.05). These findings suggest that despite the fact the high standards subscale is described as a positive feature of perfectionism, high standards is associated with lower levels of self-acceptance and higher levels of fear of failure. Additionally, students pursuing high standards share similar motivational strivings as those pursuing mastery goals, maintain positive emotional experiences amid challenging coursework, and are less likely to encounter negative emotional experiences when faced with academic challenges.

In examining relations among the negative aspect of perfectionism (e.g., discrepancy) and the various scales used in this study, there was a moderate negative correlation between discrepancy and unconditional self-acceptance (r = - 0.41).

Additionally, there was a moderate correlation found between discrepancy and fear of failure (r = .43). Results further indicated that discrepancy was associated with performance-approach (r = .12) and performance-avoidance goals (r = .21). However, discrepancy was not correlated with mastery-approach (r = .05) nor mastery-avoidance goals (r = .09).

In examining relations between each positive emotion and the negative aspect of perfectionism, discrepancy was correlated negatively with hopeful (r = -.13), satisfaction (r = -.12), proud (r = -.16), and confident (r = -.19); however, results indicated that discrepancy was not associated with happy (r = -.08), interested (r = -.04), enjoyment (r = -.06), or excited (r = -.04). Additionally, discrepancy was negatively associated with the collective positive emotions score (r = -.12).

In examining relations between each negative emotion and the negative aspect of perfectionism, discrepancy was positively correlated with hopeless (r = .28), angry (r = .16), anxious (r = .18), frustrated (r = .17), shame (r = .30), sad (r = .29), and disappointed (r = .16). The only negative emotion that was not associated with discrepancy was confused (r = .08). The collective negative emotions score was related to discrepancy (r = .27). These findings suggest that individuals who score the highest on the discrepancy subscale (i.e., maladaptive perfectionists) have a high degree of fear of failure and low levels of unconditional self-acceptance. Additionally, discrepancy is associated with strong performance goals. Individuals who focus on their inability to reach ideal achievement outcomes are less likely to have positive emotional experiences. Rather, they are likely to experience a range of negative emotional experiences within classes they find challenging.

Research Question 2

The second research question in this study was: *In what ways are adaptive perfectionists, maladaptive perfectionists, and non-perfectionists significantly different on measures of self-acceptance, failure appraisal, achievement motivation, and topic emotions?* Cluster analysis was used to identify groups of students with similar typologies based on their mean scores from the subscales of the Short Form of the Revised Almost Perfect Scale (SAPS). Researchers use cluster analysis to "define the structure of the data by placing the most similar observations (or individuals) into groups" (Hair & Black, 2000, p. 151). Both hierarchical and nonhierarchical clustering procedures were used in this present study. According to researchers, the inherent weaknesses associated with each individual method is mitigated by using both hierarchical and non-hierarchical analyses (Hair & Black, 2000). Numerous articles have since supported and implemented this cluster analysis method (Hanchon, 2011; Li, Hou, Chi, & Liu, 2014; Rice, Ashby, & Gilman, 2011; Sironic & Reeve, 2012; Wang et al., 2007). However, it should be noted that these studies all used the Almost Perfect Scale-Revised, and the new short form version was used in this present study (SAPS; Rice et al., 2014).

Hierarchical cluster analysis. A similar methodology for classifying perfectionists as previous perfectionism researchers was used in this study (Grzegorek et al., 2004; Hanchon, 2011; Li, Hou, Chi, & Liu, 2014; Mobely et al., 2005; Rice, Ashby, & Gilman, 2011; Rice & Slaney, 2002; Sironic & Reeve, 2012; Wang et al., 2007). In order to determine the optimum number of clusters, the standardized scores from the SAPS subscales were submitted to a hierarchical cluster analysis. Specifically, the hierarchical cluster analysis method consisted of Ward's linkage method with the

squared Euclidean distance measure. During each step of the agglomeration schedule, clusters are combined until only one cluster remains. Observations from the agglomeration schedule were then used to determine the appropriate amount of clusters for retention. Hair and Black (2000) assert that small changes in the schedule indicate a joining of similar clusters, while a large change in the agglomeration schedule will only occur when two clusters join and create a markedly less homogeneous cluster.

Three groups were expected to emerge and support was found for a three-cluster solution in the hierarchical analysis. A large change occurred in the agglomeration schedule when the solution decreased from four to three clusters (29%). However, the largest change in agglomeration coefficients was indicated when the solution decreased from three to two clusters (45%). Hair and Black (2000) suggest selecting the number of clusters present before the largest change in the coefficients of the agglomeration schedule. Both the three and four cluster solution were compared, but ultimately after the theoretical underpinnings were considered, a three cluster solution best represented the construct of perfectionism. These findings align with previous perfectionism theory and research (Grzegorek, et al., 2004; Rice & Slaney, 2002).

Non-hierarchical cluster analysis. To complement the findings of the hierarchical cluster analysis, a non-hierarchical (*k*-means) cluster analysis was performed. Subsequently, the centroids obtained from the hierarchical procedure were submitted to SPSS as the initial three seed points for the non-hierarchical cluster analysis (Hair & Black, 2000). During non-hierarchical cluster analysis, all observations within a specified distance from one of the selected seed points were assigned to a cluster. This process continued for each seed point, until the analytic software had

placed all observations into a cluster. Once completed, the cluster centers were recalculated and the process started over again until either no significant change in cluster means was found or the maximum number of iterations was reached. A solution converged in 6 iterations.

In order to provide statistical validation for the three-cluster solution, the findings were subjected to a one-way ANOVA and a discriminant analysis. The three cluster groups differed significantly on the subscales of the SAPS: high standards $F(2, 353) = 226.42$, $p < .00$, the partial $\eta^2 = .56$, and discrepancy $F(2, 354) = 386.58$, $p < .00$. The partial $\eta^2 = .69$. The findings from the one-way ANOVA indicate that there was at least one significant difference between a pair of means on each subscale of perfectionism. However, the omnibus F-test does not indicate which pairs are significantly different. Therefore, follow-up tests were conducted to examine pair-wise differences among the means.

The Tukey HSD post hoc analyses revealed that scores for individuals in clusters 1 (adaptive) and 3 (non-perfectionist) and scores for individuals in clusters 2 (maladaptive) and 3 (non-perfectionist) differed significantly on high standards. As expected, individuals from clusters 1 and 2 did not differ significantly on high standards since both groups were high in this characteristic. Discrepancy scores for individuals in each of the three clusters were significantly different from all of the other clusters.

A discriminant analysis was conducted to determine whether high standards scores and discrepancy scores could predict perfectionism cluster membership. The overall Wilks' lambda was significant, $\Lambda = .14$, $\chi^2(4, N = 354) = 681.75$, $p < .01$, indicating that overall the predictors differentiated among the three perfectionism

groups. In addition, the residual Wilks' lambda was significant, $\Lambda = .46$, $\chi^2(1, N = 354) = 272.99$, $p < .01$. This test indicated that predictors differentiated significantly among the three perfectionism groups after partialling out the effects of the first discriminant function. Because these tests were significant, both discriminant functions were interpreted.

Table 6 displays the within-group correlations between the predictors and the discriminant functions as well as the standardized weights. Based on these coefficients, the discrepancy scores demonstrate the strongest relationship with the first discriminant function, while high standards shows a weaker relationship. Conversely, high standards scores show the strongest relationship with the second discriminant function, while discrepancy demonstrates a negative relationship with this function. On the basis of the results presented in Table 6, the first and second discriminant functions were labeled negative striving standards and positive striving standards, respectively.

Table 6.
Within-group correlations between the perfectionism predictors and the discriminant functions

	Correlation coefficients with discriminant functions		Standardized coefficients for discriminant functions	
Predictors	Function 1	Function 2	Function 1	Function 2
High Standards	.32	.95	.17	1.00
Discrepancy	.99	-.17	.96	-.32

The means on the discriminant functions are consistent with this interpretation. The adaptive perfectionism group ($M = 1.07$) had the highest mean on the positive striving dimension, the maladaptive perfectionists ($M = .15$) had the next highest mean, and the non-perfectionists ($M = -1.72$) had the lowest mean scores. Conversely, the maladaptive perfectionism group ($M = 1.84$) had the highest mean on the negative

striving dimension, while the adaptive perfectionists (*M* = -1.35) and the non-perfectionists (*M* = -.93) had lower mean scores.

The analysis process correctly classified 94% of the individuals from the sample, when trying to predict perfectionism group membership. In order to take into account chance agreement, a kappa coefficient was computed and a value of .91 was obtained. This indicates an almost perfect agreement (Landis & Koch, 1977). Finally, to assess how well the classification procedure would predict in a new sample, the percent of students accurately classified was estimated by using the leave-one-out technique and correctly classified 94% of the sample.

Cluster descriptions. Table 7 displays the descriptive statistics for the nonhierarchical cluster analysis on indices of perfectionism (SAPS). In a three cluster design, researchers define the perfectionism typologies in the following ways: adaptive perfectionists show high scores on high standards and low scores on discrepancy (high HS/low Disc), maladaptive perfectionists show high scores on high standards and discrepancy (high HS/high Disc), and non-perfectionists show low scores on high standards and discrepancy (low HS/low Disc). In this study, participants in Cluster 1 showed high mean scores on the high standards subscale and the lowest mean scores on the discrepancy subscale. Conceptually this aligns with what previous perfectionism literature would define as adaptive perfectionists (Parker, 1997; Rice & Ashby, 2007; Slaney et al., 2002). Cluster 2 participants had the highest mean scores on both the high standards and discrepancy subscales. Theoretically, this aligns with previous perfectionism literature as the group that represents maladaptive perfectionists (Parker, 1997; Rice & Ashby, 2007; Slaney et al., 2002). Participants in Cluster 3 had the lowest

mean scores on the high standards subscale, and were therefore identified as non-perfectionists. Based on the cluster analysis results, this sample consisted of 127 adaptive perfectionists, 140 maladaptive perfectionists, and 92 non-perfectionists.

Table 7.
Short Form of Revised Almost Perfect Scale Subscale Descriptive Statistics for the Nonhierarchical Cluster Analysis Solution

	Cluster 1 Adaptive N = 127		Cluster 2 Maladaptive N = 140		Cluster 3 Non-Perfectionist N = 92			
Subscale	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*(2, 353)	η^2
High Standards	5.64[a]	.40	5.71[b]	.44	4.51[ab]	.53	226.42	.56
Discrepancy	2.61[ab]	.55	4.73[ac]	.67	3.19[bc]	.71	386.58	.69

Note: All univariate F tests were significant at $p < .00$.

Unconditional self-acceptance. In order to determine if the clusters differed significantly on Unconditional Self-Acceptance, a one-way ANOVA was conducted. Main effect results revealed that Unconditional Self-Acceptance differed significantly between groups, $F(2, 342) = 24.10$, $p < .00$. The partial $\eta^2 = .12$ indicates a large difference between perfectionism clusters and unconditional self-acceptance. Since the overall F test was significant, follow-up tests were conducted to evaluate which variables were accounting for the differences among the means. The Tukey HSD post hoc analyses indicated that there were significant cluster differences between maladaptive perfectionists and adaptive perfectionists as well as maladaptive perfectionists and non-perfectionists on unconditional self-acceptance. There were no significant cluster differences between adaptive perfectionists (cluster 1) and non-perfectionists (cluster 3) on unconditional self-acceptance. These findings indicate that maladaptive perfectionists experience the lowest amount of unconditional self-acceptance compared to both adaptive and non-perfectionists.

Failure appraisal. Additionally, a one-way ANOVA was conducted to determine if the clusters differed significantly on Failure Appraisal. Main effect results revealed that Failure Appraisal differed significantly between groups, $F(2, 349) = 25.91$, $p < .00$. The partial $\eta^2 = .13$ indicates a large difference between perfectionism clusters and fear of failure. Follow-up tests were conducted, since the F test was found to be significant. The Tukey HSD post hoc analyses revealed that the maladaptive perfectionists (cluster 2) differed significantly on failure appraisal when compared to both the adaptive perfectionists (cluster 1) and the non-perfectionists (cluster 3). As expected, adaptive perfectionists and non-perfectionists did indicate a significant difference between clusters on the failure appraisal measure. These findings indicate that maladaptive perfectionists experience higher amounts of failure cognitions than adaptive perfectionists who, in turn, were higher than non-perfectionists. Table 8 displays the means and standard deviations for the USAQ and PFAI-S instruments by perfectionism cluster.

Achievement goals. MANOVA was conducted to determine differences among the three clusters on the Achievement Goal Questionnaire – Revised. Significance was assessed at the .05 level for omnibus MANOVA and the univariate follow-ups. Significance was assessed at the .025 level for pair-wise comparisons following significant ANOVAS to control for Type I error.

MANOVA results revealed significant differences among the three clusters on the group of four subscales of the AGQ-R (mastery-approach, mastery avoidance, performance approach, performance avoidance), Wilks' $\Lambda = .82$, $F(8, 688) = 8.73$, $p <$

.00. The partial eta-squared ($\eta^2 = .09$) indicates a moderate difference between the clusters of perfectionism and achievement goal motivation.

Univariate follow-up tests were conducted on each dependent variable from the Achievement Goal Questionnaire. The adaptive, maladaptive, and non-perfectionist clusters showed significant differences on each subscale: mastery-approach, $F(2, 347) = 21.46$, $p < .00$, partial $\eta^2 = .11$; mastery-avoidance, $F(2, 347) = 8.12$, $p < .00$, partial $\eta^2 = .05$; performance-approach, $F(2, 347) = 13.47$, $p < .00$, partial $\eta^2 = .07$; performance-avoidance, $F(2, 347) = 11.68$, $p < .00$, partial $\eta^2 = .06$.

Tukey HSD post hoc tests indicated there was no significant difference found between adaptive perfectionists (cluster 1) and maladaptive perfectionists (cluster 2) on the mastery-approach subscale. However, significant differences were indicated between the non-perfectionist cluster and both the adaptive and maladaptive perfectionist clusters on the mastery-approach subscale. On the mastery-avoidance subscale, one significant difference was indicated between maladaptive perfectionists and non-perfectionists. On the performance-approach subscale, significant differences were indicated between the non-perfectionist cluster and both the adaptive and maladaptive perfectionist clusters. No significant differences emerged between adaptive and maladaptive perfectionists on the measure of performance-approach goals. Finally, significant differences were indicated between maladaptive perfectionists (cluster 2) and both the adaptive perfectionists (cluster 1) and the non-perfectionists (cluster 3) on the performance-avoidance subscale. On the performance-avoidance subscale, no significant differences emerged between adaptive and non-perfectionists. These findings suggest that adaptive perfectionists are more similar to non-

perfectionists than are maladaptive perfectionists. While adaptive perfectionists had higher scores than non-perfectionists on goals with an approach valence (both mastery and performance), maladaptive perfectionists differed from non-perfectionists on those goals with an avoidance valence (both mastery and performance) as well as those goals with an approach valence. Furthermore, maladaptive perfectionists scored higher than adaptive perfectionists on performance-avoidance goals. Table 8 displays the means and standard deviations for the Achievement Goal instrument by perfectionism cluster.

Table 8.
Means and Standard Deviations among cluster groups on Unconditional Self-Acceptance, Failure Appraisal, Achievement motivation, and Topic Emotions on indices of perfectionism (SAPS)

	Cluster 1 Adaptive			Cluster 2 Maladaptive			Cluster 3 Non-Perfectionism		
Scale	*M*	*SD*	N	*M*	*SD*	N	*M*	*SD*	N
Acceptance	3.56 [a]	.60	124	3.16 [ab]	.51	133	3.58 [b]	.47	88
Failure	3.38 [ab]	.85	125	3.92 [ac]	.63	136	3.32 [bc]	.63	91
Achievement Goals									
Map	5.11 [a]	.84	126	5.18 [b]	.79	133	4.52 [ab]	.69	91
Mav	4.27	1.13	126	4.54 [a]	1.10	133	3.95 [a]	.98	91
Pap	4.88 [a]	1.06	126	5.04 [b]	1.08	133	4.32 [ab]	.99	91
PAv	4.44 [a]	1.31	126	4.95 [ab]	1.15	133	4.22 [b]	1.06	91
Emotions									
Positive	3.05 [a]	.93	125	2.89	.85	136	2.74 [a]	.78	92
Negative	2.65 [a]	.81	125	3.06 [a]	.88	136	2.82	.82	92

Note: Subscripts denote significant differences between perfectionism typologies.

Achievement emotions. Factor analysis was used to determine if positive and negative emotion scales could be found within the emotions data. Specifically, the dimensionality of the 18 items from the Topic Emotions measure was analyzed using

principal axis factoring. Initially, it was hypothesized that the Topic Emotions scale could be factored into positive and negative emotions, but to further support the number of factors to extract the scree test and factor solution were analyzed. The scree plot indicated that two factors should be extracted. The rotated solution (e.g., Varimax rotation procedure), as shown in Table 9, yielded two interpretable factors, positive and negative emotions. The positive emotions factor accounted for 28.86% of the item variance, and the negative emotions factor accounted for 23.61% of the item variance. Two emotion items failed to load on to either factor (<.4): bored and surprised.

A MANOVA was conducted to determine differences in the three clusters on the Topic Emotions scales. MANOVA results revealed significant differences among the perfectionism clusters on the two subscales of the Topic Emotions (positive emotions and negative emotions), Wilks' $\Lambda = .93$, $F(4, 698) = 6.55$, $p < .00$. The partial $\eta^2 = .04$ indicates a moderate difference between the perfectionism clusters and Topic Emotions.

As a follow-up test to MANOVA, one-way ANOVAs were conducted on each dependent variable from the Topic Emotions scale. The adaptive, maladaptive, and non-perfectionist clusters showed significant differences on each subscale: positive emotions, $F(2, 350) = 3.60$, $p = .03$, partial $\eta^2 = .02$; negative emotions, $F(2, 350) = 8.00$, $p < .00$, partial $\eta^2 = .04$. Table 8 displays the means and standard deviations for the AGQ-R and Topic Emotions instruments by perfectionism cluster.

Tukey HSD post hoc tests indicated significant differences between adaptive perfectionists (cluster 1) and non-perfectionists (cluster 3) on positive emotions. Additionally, significant differences were found between the perfectionism typologies on negative emotions. As expected, the results showed that maladaptive perfectionists

(cluster 2) and adaptive perfectionists (cluster 1) significantly differ on negative emotions. These findings suggest that adaptive perfectionists experience higher levels of positive emotions in challenging courses compared to non-perfectionists. In turn, maladaptive perfectionists experience higher levels of negative emotions in challenging courses compared to adaptive perfectionists.

Table 9.
Factor loadings from principal axis factoring of the Topic Emotions scale (rotated data)

Indicators	Factor 1	Factor 2
Sad	-0.31	**0.76**
Disappointed	-0.25	**0.74**
Hopeless	-0.36	**0.72**
Shame	-0.15	**0.71**
Frustrated	-0.33	**0.68**
Angry	-0.36	**0.53**
Anxious	-0.07	**0.53**
Bored	-0.34	0.21
Enjoyment	**0.87**	-0.21
Excited	**0.86**	-0.18
Satisfaction	**0.79**	-0.26
Interested	**0.76**	-0.18
Happy	**0.75**	-0.24
Proud	**0.74**	-0.19
Hopeful	**0.58**	-0.32
Confident	**0.55**	-0.48
Surprised	0.21	0.23

CHAPTER FIVE
Discussion

The primary purpose of this study was to obtain greater insight into the nature of perfectionism. Specifically, there were two goals of this investigation. The first goal was to investigate the relationship between the positive and negative features of perfectionism as measured by the Short Form of the Revised Almost Perfect Scale (SAPS) and constructs of emotional well-being, achievement motivation, and emotions. The second goal of this study was to investigate the typologies of perfectionism and their differences on measures of emotional well-being, achievement motivation, and emotions. This chapter summarizes the findings from the present study in relation to each research question. Additionally, the theoretical and practical implications, limitations of this research, and suggestions for future research are discussed.

Research Question 1

According to perfectionism literature, high standards reflect the positive feature of perfectionism and describe the setting and striving after goals that are of extreme importance to the individual. The discrepancy subscale represents the negative feature of perfectionism. Discrepancy denotes an individual's perception of inability towards reaching their high standards of achievement, and is the key factor that distinguishes adaptive perfectionists from maladaptive perfectionists. These subscales were correlated with emotional well-being variables and a modest association was found between high standards scores and both unconditional self-acceptance and fear of failure. Notably, the relationship between high standards and unconditional self-acceptance was negative. The findings indicate that despite any positive consequences associated with the setting, and then striving towards high standards of achievement

(e.g., GPA, SAT scores), there may be negative emotional consequences affiliated with the high standards subscale.

The maladaptive feature of perfectionism, discrepancy, was found to have a negative and moderate correlation with unconditional self-acceptance and a moderately positive association with fear of failure. This indicates that individuals who focus on the gaps between their ideal and actual achievement standards are particularly sensitive to indications of failure. These results align theoretically with previous literature that asserts that individuals characterized by the maladaptive aspect of perfectionism are prone to demonstrate fear of mistakes and tend to be motivationally oriented towards failure avoidance (Bieling et al., 2003; Elliot & Thrash, 2004; Parker, 1997; Shafran & Mansell, 2001; Slade & Owens, 1998).

These findings illuminate two important ideas. First, perfectionists (i.e., both adaptive and maladaptive) are defined by high standards of achievement. This shared component means that all perfectionists have the potential to experience psychological distress due to an inability to embrace both individual strengths and weaknesses, and a fear of the aversive consequences associated with failure (Ellis, 1962; Flett & Hewitt, 2002; Williams & Lynn, 2010). This may be in part because perfectionists measure "their worth entirely in terms of productivity and accomplishment" (Burns, 1980, p. 34) and inevitably there will be times when an individual's effort will not yield the desired result. Secondly, relationships between low self-acceptance and high fear of failure were greater in magnitude for the discrepancy scores than for the high standards scores. As such, the emotional well-being of maladaptive perfectionists (i.e., who are

characterized by high scores on discrepancy) seem to be at the greatest risk among all of the perfectionism typologies.

Correlation coefficients were also used to investigate relationships between the positive and negative features of perfectionism and achievement motivation. Individuals who focus on task expertise, high competency, and skill development also report high standards. Specifically, high standards scores were moderately associated with mastery-approach goals and modestly correlated with mastery-avoidance goals. These findings may suggest that the positive feature of perfectionism and the mastery goal orientations share a similar motivational drive (i.e., the "why" and "how" of achievement efforts).

Individuals who are performance goal oriented use social comparisons as a marker of success. In this study, performance goals were correlated with both the positive (high standards) and negative (discrepancy) features of perfectionism. Specifically, high standards scores were moderately correlated with performance-approach goals, while discrepancy scores were weakly associated. These findings may highlight a similar focus on attaining positive achievement outcomes between performance-approach goals and both features of perfectionism. On performance-avoidance goals, both high standards scores and discrepancy scores were modestly related. These findings also indicate that both the positive and negative attributes of perfectionism and performance-avoidance goals, tap into a similar perceptual set regarding achievement.

Finally, the present study investigated adaptive and maladaptive features of perfectionism in relation to positive and negative emotions. The findings indicate a

modest correlation between the high standards subscale and positive emotions as a whole and individually. No relationship emerged between scores on the high standards subscale and negative emotions as a whole. These findings may indicate that the underlying motivation needed to strive after high standards of achievement may also ignite a variety of positive emotional experiences needed to sustain motivation towards those achievement endeavors.

The discrepancy subscale had a modest, negative relationship with positive emotions as a whole, and with three positive emotions in particular: satisfaction, pride, and confidence. This may indicate that due to a focus on performance discrepancies, individuals associated with maladaptive perfectionism struggle to feel satisfaction and pride even when they have done a good job. As previously discussed, discrepancy was associated with fear of failure due to an aversion of negative consequences. This finding may help explain why a negative relationship between discrepancy and feelings of confidence exists (i.e., especially when an individual focuses on the most difficult class in their degree program). As expected, a moderate correlation between the maladaptive feature of perfectionism and negative emotions emerged. Specifically, there were modest to moderate relationships between discrepancy scores and frustration, hopelessness, shame, sadness, and disappointment. This aligns with previous research that indicated an association between discrepancy and "negative psychological states" (Slaney et al., 2002, p. 82).

Research Question 2

In order to differentiate between typologies of perfectionism, cluster analysis of the Short Form of the Revised Almost Perfect Scale SAPS scores was used in the

present study. In line with previous research, three clusters emerged and were identified as adaptive perfectionists, maladaptive perfectionists, and non-perfectionists (Hanchon, 2010; Grzegorek, et al., 2004; Parker, 1997; Rice & Ashby 2007; Rice & Mirzadeh, 2000; Rice & Slaney, 2002). The findings from this study indicated that there are significant differences between the typologies of perfectionism. Specifically, differences were found between adaptive perfectionists, maladaptive perfectionists, and non-perfectionists on measures of emotional well-being, achievement motivation, and emotions.

In the present study, the maladaptive group differed from the other two groups on both indicators of emotional well-being. Specifically, maladaptive perfectionists had the lowest scores on unconditional self-acceptance and the highest scores on failure aversion compared to the other perfectionism typologies. The divergence of the maladaptive perfectionists from the adaptive and non-perfectionists on measures of emotional well-being may suggest that maladaptive perfectionists experience some form of contingent approval and as such, demonstrate high aversion towards failure. This supports other researchers who found a similar relationship between maladaptive perfectionists and low levels of unconditional self-acceptance (Flett et al., 2002; Flett et al., 1994). Additionally, these findings align with previous research that asserts that "performance-based approval" fosters fear and apprehension in evaluative situations (Blankstein et al., 1993; Conroy et al., 2002; Flett et al., 1991; Hamachek, 1978; Parker & Adkins, 1995; Rice et al., 1996). Perhaps the adaptive and non-perfectionists are less vulnerable to the psychological distress maladaptive perfectionists experience because both typologies have low scores on the negative feature of perfectionism (e.g.,

discrepancy) and seem less inclined to perceive threat and/or aversive consequences when their ideal standards of achievement are not met (Parker, 1997).

Research studies have indicated that the way an individual appraises performance outcomes can influence achievement-related behavior and goal pursuit (Elliot & Pekrun, 2007; Roseman & Smith, 2001); therefore, it was important to examine how the perfectionism typologies differed in achievement goal orientation. In the present study, achievement goal orientation showed a different pattern of relationships than the emotional well-being variables. Specifically, maladaptive perfectionists differed from non-perfectionists on every goal orientation (e.g., mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance). Researchers believe that a core feature of perfectionism is intense pursuit of (or striving toward) very high achievement standards (Flett & Hewitt, 2002; Stoeber & Otto, 2006), which may explain (at least in part) why maladaptive perfectionists compared to non-perfectionists showed higher endorsement of every type of achievement goal presented to them in the survey. The achievement motivation differences between maladaptive perfectionists and non-perfectionists may also stem from their nearly opposite typology compositions. For example, the way a maladaptive perfectionist pursues achievement is influenced by the individual's specific perfectionism structure: (high) high standards/ (high) discrepancy. This fact may highlight how a focus on performance gaps coupled with rigid standards of achievement, may energize a maladaptive perfectionist's achievement pursuits in ways that are not characteristic of non-perfectionists.

Contrary to expectations, no significant differences emerged between adaptive perfectionists and maladaptive perfectionists on mastery-approach goals. This finding

may be explained by the fact that both groups diligently strive towards high standards of academic achievement (Elliot & Thrash, 2001; Gilman & Ashby, 2003; Hamachek, 1978; Slaney et al., 2002). Further, no significant differences emerged between maladaptive perfectionists and adaptive perfectionists on mastery-avoidance goals. This may support Elliot and McGregor's (2001) assumption that the kinds of strivings that perfectionists make to avoid mistakes are ideal examples of mastery-avoidance orientation. Overall, these findings suggest that both adaptive and maladaptive perfectionists share a desire to increase their competency and perhaps it is their shared high standards that link these typologies with mastery goals. The only significant difference found between adaptive and maladaptive perfectionists on achievement goals was on performance-avoidance goals. This finding highlights the high aversion to mistakes that is common among maladaptive perfectionists, who seek to avoid displaying any signs of incompetence.

Understanding the emotional experiences of perfectionists within academic settings was another goal of this investigation. The findings highlight that adaptive perfectionists differ significantly from the non-perfectionists on scores of positive emotions. Among the three groups, adaptive perfectionists reported the highest means on positive emotions. Subsequently, experiencing emotional vulnerability when thinking about their most difficult class and focusing on negative aspects of performance were not salient feelings among adaptive perfectionists. This suggests that despite any inherent discrepancies adaptive perfectionists encounter from failing to meet an achievement standard, they seem to espouse a more positive academic outlook. This aligns with previous research that asserts that adaptive perfectionists are associated

with general feelings of satisfaction and overall healthy psychological adjustment (Dixon et al., 2004; Grzegorek et al, 2004; Rice & Mizradeh, 2000; Rice et al., 1998, 2005; Slade & Owens, 1998; Wang et al., 2007).

Further, the results indicated that there was a significant difference between the cluster of adaptive and maladaptive perfectionists on how they experienced negative emotions when thinking about the most difficult class of their degree program. Among the three groups, maladaptive perfectionists reported the highest means on negative emotions. This could suggests that there are unique cognitive processes occurring between adaptive and maladaptive perfectionists in regards to achievement situations; as such, the outcomes yield distinctive emotional experiences. Moreover, maladaptive perfectionists are plagued by feelings of failure and conditional acceptance, which are both associated with negative emotions and psychological distress (Blatt & Homann, 1992; Burns, 1980; Deci & Ryan, 1995; Ellis, 1962; Flett & Hewitt, 2002; Rogers, 1951; Williams & Lynn, 2010).

Theoretical Implications

As it stands within the perfectionism literature, researchers are divided on how to operationalize perfectionism. In this study three typologies emerged, and these clusters were labeled based on defining characteristics of adaptive, maladaptive, and non-perfectionists found within perfectionism literature. Using the non-perfectionist cluster as a baseline for comparison, this study showed that these individuals have the healthiest emotional well-being profile since they seem to generally accept themselves and show low indications of fear of failure cognitions.

According to the findings, adaptive perfectionists seem to face minimal threats to their emotional well-being. While there does seem to be evidence to support that this typology struggles with fear of failure cognitions, adaptive perfectionists are lower on negative emotions than maladaptive perfectionists and higher on positive emotions than non-perfectionists. This suggests that these individuals not only experience positive emotions when engaging in challenging achievement-related activities, but they also seem to mitigate negative emotions when performance expectations are not met.

When examining the achievement motivation of the adaptive perfectionism cluster, it is clear that these individuals show greater motivation towards achievement and competency attainment (i.e., goals with an approach valence) than the non-perfectionist cluster. While the adaptive perfectionists cluster shows similar achievement motivation scores as the maladaptive perfectionists, it is this researcher's contention that these similarities highlight a shared striving effort but are not due to both clusters being rooted in perfectionism. The groups do not differ on mastery goals or on performance-approach goals, all of which have been associated with positive striving in the literature (Elliot, 1997; Meece & Holt, 1993). But maladaptive-perfectionists are significantly higher than adaptive perfectionists on performance-avoidance goals. Specifically, it appears that the "adaptive" perfectionists are not really perfectionists at all. I would suggest that this cluster more accurately describes high striving students that set high academic goals, show an invested interest in a pursuit of excellence, but are not wrapped up in the idea that perfection is desirable or even attainable. These individuals indicate very distinctive emotional experiences that are so

different from the maladaptive cluster and the non-perfectionist cluster, that I must conclude that this study measured an entirely separate class of students.

Practical Implications

The cluster analysis results indicated that the sample consisted of 127 adaptive perfectionists (35%), 140 maladaptive perfectionists (39%), and 92 non-perfectionists (26%). The findings from this study are of particular interest to educators because it indicates that approximately 74% of the students were identified as some type of perfectionist. This aligns with research by Rice & Slaney (2002) that indicated 66% of their participant population were perfectionists. These findings have possible educational implications due to the qualitative differences between the perfectionism typologies that emerged. With such a prevalent amount of perfectionists in academia, there is a clear need to identify students that are struggling with maladaptive perfectionism and to help mitigate some the negative associated consequences.

Specifically, the results are important because they indicate that maladaptive perfectionists have very distinctive ways of thinking, behaving, and feeling in terms of academic pursuits. Overall, maladaptive perfectionists had the least healthy profile of emotional well-being; and discrepancy seems to underscore the problematic beliefs and subsequent distress that is associated with these individuals. Moreover, maladaptive perfectionists are motivationally oriented to avoid failure. Within a classroom, these types of students may display behaviors that are counterproductive to their goals of achieving high standards of achievement (e.g., procrastination). Educators could most likely distinguish between high strivers and maladaptive perfectionists within their classrooms, from the negative emotional reactions maladaptive perfectionists will

display regarding grades, academic standing, and projects. According to previous perfectionism literature (that denotes high striving students as adaptive perfectionists) and according to this study's findings, individuals who are high striving students are less likely to show aversive reactions to falling short of a valued academic goal.

Therefore, it would be mutually beneficial for students and teachers alike, if educational systems worked to provide training on how to identify and assist those individuals who present as maladaptive perfectionists.

Limitations/Future Directions

The current study had some limitations that warrant acknowledgement. Research is best supported by samples that are truly representative of the general population. The generalizability of the findings of this study are limited to the particular participant characteristics, but the results might have broader implications regarding perfectionism in the classroom. In order to substantiate the generalizability of the findings, this study should be tested among other sample groups. The study sample was predominately white and female. In the future, it would be beneficial to obtain a greater balance of gender and ethnicity in order to garner a more accurate portrayal of the general population. Additionally, sampling from a variety of school types (e.g., universities, community colleges, technology schools, online education programs) and communities (e.g., rural, urban) will provide a more global picture of how perfectionism typologies impact learners.

Another possible limitation of this study was the use of cluster analysis due to its effects on statistical validity. This method "always creates clusters, regardless of the 'true' existence of any structure in the data" and "is totally dependent on the variables

used as the basis for the similarity measure" (Hair & Black, 2000, p. 149). While there is seemingly room for interpretation among researchers, this study found through discriminant analysis, that there was an almost perfect agreement on both measures of the sample being correctly classified and on how well the classification procedure would predict in a new sample. Future research might employ different methods for classifying perfectionists (e.g., hierarchical linear modeling), or utilize a mixed methods approach in order to gain a richer picture of perfectionism typologies. It might also be beneficial to investigate the environmental and life circumstances that differentiate the typologies. Understanding more about the developmental precursors of perfectionism, will assist in classifying typologies as well as provide insight on what if any, prevention is possible.

Finally, this study utilized online self-report measures which could potentially be a limitation. Participants were free to take the surveys at a time and place of their choosing, which may introduce bias in terms of external validity. Additionally, since the aim of this study was to measure various typologies of perfectionists, there may have been individuals who answered questions in the manner they did due to social desirability and wanting to present well and/or give "perfect" responses.

Conclusion

The purpose of this study was to assess differences among adaptive perfectionists, maladaptive perfectionists, and non-perfectionists on various achievement motivation orientations and variables of emotional well-being. Additionally, a goal of this study was to investigate how the unique facets of perfectionism (e.g., high standards and discrepancy) relate to these specific motivation

and emotion variables. Despite disagreements among researchers on how to operationalize perfectionism, it is clear that a certain subset of these individuals struggle with their perceived inadequacies. Specifically, maladaptive perfectionists are sensitive to indications of failure and seem to measure their worth in terms of productivity. With such a large amount of students who identify with being a perfectionist, it is important to further investigate how this perpetual drive towards often unattainable standards impacts learners.

"Perhaps we'll never know how far the path can go, how much a human being can truly achieve, until we realize that the ultimate reward is not a gold medal but the path itself."

– George Leonard

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APPENDIX A

Short Form of the Revised Almost Perfect Scale

Directions: The following statements represent goals and standards students may have. Before beginning the survey, please take a moment to reflect on the ***most difficult class in your degree program***. While thinking about your most difficult class, indicate the extent to which you agree or disagree with each statement using the scale below.

Participants respond to items using a 6point scale ranging from 1 (strongly disagree) to 6 (strongly agree)

1. I have high expectations for myself.
2. Doing my best never seems to be enough.
3. I set very high standards for myself.
4. I expect the best from myself.
5. My performance rarely measures up to my standards.
6. I am hardly ever satisfied with my performance.
7. I have a strong need to strive for excellence.
8. I often feel disappointment after completing a task because I know I could have done better.

APPENDIX B

Unconditional Self-Acceptance Questionnaire

Directions: The following statements represent beliefs students may have. Please read each statement and then indicate how often you feel each statement is true or untrue of you, using the scale below:

Participants responded to items using a 6-point scale ranging from 1 (almost always untrue) to 6 (almost always true)

1. Being praised makes me feel more valuable as a person.
2. I feel worthwhile even if I am not successful in meeting certain goals that are important to me.
3. When I receive negative feedback, I take it as an opportunity to prove my behavior or performance.
4. I feel that some people have more value than others.
5. Making a big mistake may be disappointing, but it doesn't change how I feel about myself overall.
6. Sometimes I find myself thinking about whether I am a good or bad person.
7. To feel like a worthwhile person, I must be loved by the people who are important to me.
8. I set goals for myself with the hope that they will make me happy (or happier).
9. I think that being good at many things makes someone a good person overall.
10. My sense of self-worth depends a lot on how I compare with other people.
11. I believe that I am worthwhile simply because I am a human being.
12. When I receive negative feedback, I often find it hard to be open to what the person is saying about me.
13. I set goals for myself that I hope will prove my worth.
14. Being bad at certain things makes me value myself less.
15. I think that people who are successful in what they do are especially worthwhile people.
16. I feel that the best part about being praised is that it helps me to know what my strengths are.
17. I feel that I am a valuable person even when other people disapprove of me.
18. I avoid comparing myself to others to decide if I am a worthwhile person.
19. When I am criticized or when I fail at something, I feel worse about myself as a person.
20. I don't think it's a good idea to judge my worth as a person.

APPENDIX C

The Performance Failure Appraisal Inventory (Short-Form)

Directions: The following statements represent beliefs students may have. Read each statement and then indicate the extent to which you agree or disagree with each statement, using the scale below.

Participants responded to items using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree)

1. When I am failing, I am afraid that I might not have enough talent.
2. When I am failing, it upsets my "plan" for the future.
3. When I am not succeeding, people are less interested in me.
4. When I am failing, important others are disappointed.
5. When I am failing, I worry about what others think about me.

APPENDIX D

Achievement Goal Questionnaire-Revised

Directions: The following statements represent goals students may have. Before beginning the survey, please take a moment to reflect on the ***most difficult class in your degree program***. While thinking of your most difficult class, indicate how often you feel each statement is true or untrue of you using the scale below.

Participants responded to items using a 6-point scale ranging from 1 (almost always untrue) to 6 (almost always true)

1. My aim is to completely master the material presented in my most difficult class.
2. I am striving to do well compared to other students.
3. My goal is to learn as much as possible.
4. My aim is to perform well relative to other students.
5. My aim is to avoid learning less than I possibly could.
6. My goal is to avoid performing poorly compared to others.
7. I am striving to understand the content of my most difficult class as thoroughly as possible.
8. My goal is to perform better than the other students.
9. My goal is to avoid learning less than it is possible to learn.
10. I am striving to avoid performing worse than others.
11. I am striving to avoid an incomplete understanding of the course material.
12. My aim is to avoid doing worse than other students.

APPENDIX E

Topic Emotions

Directions: Attending classes at a university can induce different feelings. The following are a list of emotions that you may experience when attending the ***most difficult class*** in your degree program. Before beginning the survey, please take a moment to reflect on your most difficult class. Next, read the sentence below and for each emotion indicate the intensity of your emotional response using the scale below.

Sentence: *When I think about the most difficult class in my degree program, I feel*:

Participants respond to items using a 5-point scale ranging from 1 (not at all) to 5 (very strong)

1. Angry
2. Hopeful
3. Anxious
4. Happy
5. Confused
6. Interested
7. Frustrated
8. Hopeless
9. Enjoyment
10. Satisfaction
11. Shame
12. Sad
13. Proud
14. Excited
15. Disappointed
16. Confident

APPENDIX F

Participant Demographics

1. Grade Level:

_____ Freshman

_____ Sophomore

_____ Junior

_____ Senior

_____ Graduate Student

2. Major: _____

3. Age: _____

4. Gender: M F

5. Ethnicity (check all that apply):

   _____ American Indian or Alaska Native

   _____ Asian

   _____ Hispanic or Latino

   _____ Native Hawaiian or Other Pacific Islander

   _____ White

   _____ Other: _____