

DEFENSIVE MECHANISMS OF PERFECTIONISTS

By

DAVID J. HANNAH

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To Mary Triay, for first introducing me to psychology

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Abstract of Thesis Presented to the Graduate School
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David J. Hannah

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Perfectionism has been extensively researched as a pervasive problem in college students and in counseling. Many of the findings in this research show that perfectionists are less likely to seek counseling, and if they do are highly unlikely to be successful. Several authors have theorized perfectionists' unsuccessful therapy may be due to, among other things, problem areas in self psychological conflicts, defensiveness, self-concealment, and psychological distress. The current study explored multidimensional perfectionism constructs as they relate to these problem areas, and also examines how these areas relate to one another. Results showed that perfectionists do have disrupted selfobject needs, were less likely to be defensive, and results of self-concealment were mixed.

CHAPTER 1 INTRODUCTION

Perfectionism has been a topic of debate in the literature for the past few decades. Early definitions of the perfectionism construct were based on high standards, but this has expanded more recently. One of the first models by Hamachek (1978) defined perfectionism as being either normal or neurotic. Normal perfectionists have high standards but tolerate mistakes, whereas neurotic perfectionists also have high standards but obsess over mistakes and engage in overly critical self-evaluations. This was an early model of perfectionism that included a non-disturbed and even healthy subtype.

Frost, Marten, Lahart, and Rosenblate (1990) were critical of the idea of a normal perfectionist and believed that high standards were not sufficient to classify perfectionists. They created a measure to assess aspects of perfectionism that were related to clinical measures of psychopathology, many of which included attributes of perfectionism. Later, Hewitt and Flett (1991b) described perfectionism in terms of being self-oriented, other-oriented and socially-prescribed. These types of perfectionism were based on the imposition of high standards, meaning the standards were either imposed on the self, on others, or from others.

Most recently there has been renewed support for a two dimensional model of perfectionism that includes maladaptive and adaptive perfectionism. Maladaptive perfectionists have unrealistically high standards and experience excessive self-criticism when failing to meet those standards. Adaptive perfectionists have set very high standards for themselves, but these goals are experienced positively and motivationally. This model allows for a person to display behaviors and feelings consistent with perfectionism, but not necessarily have the negative psychological consequences of experiencing a discrepancy between standards and actual

performance (Rice & Slaney, 2002; Rice, Ashby, & Slaney, 1998; Slaney, Ashby, & Trippi, 1995).

Problems related to perfectionism manifest in numerous areas of psychological functioning such as anxiety (Flett & Hewitt, 2004), shame (Ashby, Rice, & Martin, 2006), and depression (Blatt, 1995). Perfectionists react to these problems in defensive manners, and many of these defensive maneuvers have been hypothesized to be connected to Kohut's theory of self psychology. These issues are particularly problematic in the college population and manifest themselves in therapeutic settings where perfectionists are rarely successful, if they even seek help in the first place (Blatt, 1995; Nadler, 1983). Self psychology constructs have been investigated in perfectionists using older models and measures of perfectionism; replication and extension of earlier work is needed using measures designed to tap adaptive and maladaptive perfectionism.

Self psychology is based on the development of a cohesive sense of self during childhood. The core of this theory is based on selfobject needs of grandiosity and idealization that a child strives to have met through self-expression. Grandiosity needs are very narcissistic, placing the child as the center of all reality. Idealization is a need to merge with caretaking figures, usually parents, and be just like them. In normal development, these needs are met through empathic reflection of self-expression. When attempts at self-expression are occasionally not properly mirrored, the child then revises his/her concept of self and improves self-soothing capacities. Therefore, appropriate selfobject frustrations generally result in a functional, cohesive sense of self (Kohut, 1971; 1977). Problematic development occurs when selfobject needs are too frequently frustrated and the child may never mature out of grandiosity and idealization needs (Patton & Sullivan, 1980).

Kohut's self psychology also includes defensive mechanisms that either actively make up for a defect, or work to conceal it. Making up for a defect is similar to global defensiveness, and concealing a defect is related to self-concealment. Global defensiveness is defined as a person's tendency to be guarded or protective, and self-concealment is a person's tendency to actively conceal potentially negative or distressing personal information. Dickinson and Ashby (2005) measured ego defenses in perfectionists and found that maladaptive perfectionists tend to utilize more immature defense styles than adaptive and non-perfectionists. Kawamura and Frost (2004) found self-concealment to be a significant mediator between perfectionism and psychological distress. Self-concealment is theorized to be a specific defensive coping mechanism, so global defensiveness and self-concealment will be measured separately (Cramer, 1991).

The literature surrounding self psychology, defensiveness, and self-concealment, as each construct relates to perfectionism, needs to be updated and expanded upon. One specific aim of this study is to conceptually replicate a previous study by Rice and Dellwo (2002) by including updated measures of perfectionism; results are expected to show that perfectionism may be associated with frustrated grandiose needs to be admired by idealized figures. Another purpose of this study is to examine the level of global defensiveness in perfectionists, with the expectation that perfectionists will be more defensive than non-perfectionists. A study by Kawamura and Frost (2004) investigated a mediator relationship between maladaptive perfectionism and self-concealment, so this study will examine the tendency to self-conceal by both maladaptive and adaptive perfectionists as compared to non-perfectionists; results are expected to show that both maladaptive and adaptive perfectionists have a significantly higher tendency to self-conceal than non-perfectionists.

The current study will measure the association between perfectionism and each of the aforementioned constructs. In a preliminary analysis, the discriminant validity between measures of defensiveness and self-concealment will be measured. Then, as an extension of the self psychology literature, perfectionism group differences will be measured on self psychology constructs using a more contemporary measure of perfectionism than was previously used. Next, differences in groups of perfectionists will be measured with an assessment of global defensiveness. Group differences will also be tested with self-concealment as the dependent variable. Finally, the level of psychological distress among groups will be measured.

Chapter Two provides a more extensive review of the literature of perfectionism, self psychology, defensiveness, and self-concealment. The conclusion of Chapter Two includes hypotheses regarding the direction of the relationship perfectionism has to dimensions of self psychology, psychological defense, self-concealment, and psychological distress. Chapter Three covers participant recruitment, data collection method, and measures used. Chapter Four reports on statistical results of the study, and Chapter Five provides interpretation, discussion, limitations, implications, and conclusions of those results.

CHAPTER 2 LITERATURE REVIEW

The Concept of Perfectionism

Perfectionism has been mentioned in the literature for a long time, dating back even before Karen Horney's (1939) important theoretical work, but not until more recently has perfectionism received specific empirical attention and focus. Traditionally the definition of perfection was abstract and mostly related to having high standards. Hamachek (1978) defined two dimensions of perfectionism that he called "normal" and "neurotic." Normal perfectionists have high standards but are able to tolerate non-perfection in most contexts. Neurotic perfectionists have high standards similar to normal perfectionists, but leave no room for mistakes and ample room for self-criticism. A neurotic perfectionist is overly concerned with mistakes, no matter how small, a concern that corresponds to a fear of failure rather than a desire for achievement.

Frost, Marten, Lahart, and Rosenblate (1990) argued against the idea of a "normal" form of perfectionism and believed that the definition of perfectionism still put too much emphasis on high standards alone. The authors felt the definition was lacking key elements to distinguish a perfectionist from someone who was simply high achieving, competitive, and successful. Therefore, Frost et al. (1990) created and found empirical support for their Multidimensional Perfectionism Scale (MPS). This measure included subscales that tapped into the aspects of perfectionism closely associated with the more clinical measures of psychopathology. The MPS subscales include Concern Over Mistakes, Personal Standards, Parental Expectations, Parental Criticism, Doubts About Actions, and Organization. The MPS was successful at measuring perfectionism based on a concern over mistakes rather than high standards.

Since Frost et al., there has been increasing evidence supporting similar conceptualizations of perfectionism as a multidimensional construct. For example, Hewitt and Flett (1991b) developed a model of self-oriented, other-oriented, and socially-prescribed perfectionism. Self-oriented perfectionists set unrealistically high standards for their own performance, other-oriented perfectionists have high standards for the conditions and people around them, and socially-prescribed perfectionists believe the people in their lives and society have unrealistically high standards for them. This model of perfectionism was a step in the direction of understanding the etiology of excessively high standards; however it still seemed incomplete without defining what constitutes well-adjusted and functioning perfectionists.

Most recently, and consistent with earlier conceptualizations, there has been extensive support for a two dimensional structure of perfectionism emphasizing maladaptive and adaptive aspects of the construct (Rice & Slaney, 2002; Rice, Ashby, & Slaney, 1998; Slaney, Ashby, & Trippi, 1995). Maladaptive perfectionists have unrealistically high standards for performance with excessively critical self-evaluations and perceived inadequacies in attempting to meet those standards. Similar to maladaptive perfectionists, adaptive perfectionists have high standards and persevere to meet them, however these strivings are experienced as encouraging and motivational rather than distressing.

Psychological Issues of Perfectionism

Perfectionism has been linked to numerous psychological issues, including anxiety (Flett & Hewitt, 2004), shame (Ashby, Rice, & Martin, 2006), and depression (Blatt, 1995). A large body of literature has emerged surrounding perfectionism's link to depression, which confirms a strong, positive relationship between maladaptive perfectionism and depression (Blatt, 1995; Hewitt & Flett, 1991a). Aldea and Rice (2006) found that maladaptive perfectionists demonstrate more problematic emotional regulation than adaptive perfectionists, and speculated that the

psychological distress of perfectionism could be attributed to affect dysregulation. When faced with troubles, maladaptive perfectionists have especially negative coping skills compared to adaptive and non-perfectionists (O'Connor & O'Connor, 2003). Problematic coping could be another mechanism through which perfectionism affects psychological well-being (Rice & Lapsley, 2001).

Perfectionism has shown to be an immense problem for college students, especially among those in counseling (Chandler & Gallagher, 1996). Perfectionism has been found to manifest in academic problems, depression, anxiety, emotional maladjustment, and other psychological difficulties (Blatt, 1995; Flett & Hewitt, 2004; Rice & Lapsley, 2001).

Perfectionists in general are less likely to be successful in treatment, but they are also less likely than non-perfectionists to actually seek assistance for a fear of being seen as a failure (Blatt, 1995; Nadler, 1983). One explanation for unsuccessful treatment may be the low self-esteem often present with maladaptive perfectionists. Low self-esteem can result in high sensitivity to perceived critical feedback and might also result in displays of extreme emotional reactivity (Preusser, Rice, & Ashby, 1994; Rice & Lopez, 2004). The present study is designed to increase understanding of the factors that impede perfectionists from receiving therapeutic treatment benefits. The focus will be on defensiveness and self-concealment, concepts embedded in Kohut's theory of self psychology.

Self Psychology

Self psychology, rooted in psychoanalytic theory, includes thorough attention to defense mechanisms. In classic psychoanalytic theory, perfectionism has been theorized to work unconsciously to protect the self from criticism, blame, guilt, and rejection stemming from a harsh superego demanding perfection and critical of failure (Blatt, 1995; Hamachek, 1978; Sorotzkin, 1985). The superego may demand perfection, but when perfection cannot be achieved,

strong dissonance is created between the high standards set forth and actual performance (Pacht, 1984). This dissonance is consistent with the definition of maladaptive perfectionism.

Specifically, maladaptive perfectionists are identified as maintaining unreasonably high standards, and the failure to meet those standards results in excessively harsh self-criticism (Slaney, Ashby, & Trippi, 1995).

Kohut's theory is based on the development of the "self" during childhood. The self is considered the core of the personality. At the heart of the self psychology theory is what Kohut termed selfobject needs. In his earlier work, Kohut expanded selfobject needs into two areas referred to as grandiose needs and idealization needs. Grandiose needs are very narcissistic, with the child needing to be the center of the universe. The child lives by implicit thoughts such as, "I am perfect, I am powerful, I am loved." Idealization needs are related to goal-setting by striving to "merge" with omnipotent, idealized figures, usually parents. Here the child's experiencing is similar to thoughts such as, "You are perfect and I will be like you." Both of these needs work together fluidly to develop the self based on how the needs are met (Kohut, 1971; 1977). In 1984, Kohut expanded his theory of self psychology to include a third, interpersonal dimension referred to as alter ego need or belongingness, but for the purposes of this study and its emphasis on intra-personal functioning rather than interpersonal functioning, this additional construct will not be addressed.

Selfobject needs are met by the empathetic mirroring of attempts at self-expression, usually provided by parents or caregivers, the idealized figures. However, it is rare that parents are able to be perfect empathic mirrors at every self-expression event, and this inconsistency gives the child an opportunity to revise his/her concept of self. This being said, failures at mirroring can be a normal and positive part of growth when experienced properly (Kohut, 1971;

1977). For example, if a child were to look for the fulfillment of grandiose needs to be perfect, and the need is not met with proper reflection, she or he may revise the sense of self to be less narcissistic. On the other hand, if a child's expressions of grandiose needs to be perfect are met excessively, the child may integrate the idea of being perfect into a concept of self.

In order to be stable and functional, the self needs to be cohesive. At birth, a child has a primitive sense of self that is grandiose and desires to merge with parenting figures. When empathic failures occur appropriately, the event serves as an introduction to reality, and selfobjects change to self-assertiveness and admiration, which are the more adaptive counterparts of grandiosity and idealization. The self-assertiveness construct is ambitiousness, while admiration is the ability to perceive the self as separate from others. Should empathetic failures occur inappropriately, the child may never develop out of grandiosity and idealization needs, or worse, may regress to very maladaptive traits of shame and painful envy (Patton & Sullivan, 1980). It appears that perfectionists have some disruption in this process that develops a cohesive self.

Kohut's self psychology theory has been applied to numerous realms of psychology, ranging from broad areas such as general counseling (Patton & Meara, 1996), to specific foci like child abuse (Eldridge & Finnican, 1985), the elderly (Lynch, 1988), and group psychotherapy (Harwood, 1983). Relevant to the current study, Patton and Robbins (1982) presented the applicability of self psychology to the college student population. They provided a list of issues presented by college students in therapy that are commonly challenging for their counselors to address, and demonstrated how each facet of self psychology applies to problems originating during early development and arising in college-age populations. Several of the issues pointed out were consistent with concepts relevant to perfectionism, such as, "The student

discloses perverse sexual fantasies or activities in which themes of perfection and domination are evident” (Patton & Robbins, 1982, p. 877).

Self Psychology Applied to Perfectionism

A study by Rice and Dellwo (2002) investigated how self psychology constructs are related to perfectionism using the MPS (Frost et al., 1990) and the Superiority and Goal Instability Scales (Robbins & Patton, 1985). Perfectionism groups were formed on the basis of subscale scores of the MPS. Specifically, cluster analysis revealed a group labeled adaptive perfectionists who had relatively high Personal Standards and Organization scores but low scores on the other MPS subscales. A group of maladaptive perfectionists emerged who had high scores on all MPS subscales. Maladaptive perfectionists had more goal instability (unmet idealization needs) than adaptive perfectionists and non-perfectionists, and both types of perfectionists were equally disrupted in superiority (unmet grandiose self needs) fulfillment compared with non-perfectionists. These findings suggest that perfectionism may develop from frustrated grandiose needs to be admired by idealized figures (Rice & Dellwo, 2002).

From the results of Rice and Dellwo (2002) it is important to emphasize that idealization would seem especially problematic for maladaptive perfectionists. Results have shown that adaptive and non-perfectionists have a better integrated sense of idealization compared to maladaptive perfectionists. Both groups of perfectionists displayed more unmet grandiose needs than non-perfectionists. Rice and Dellwo (2002) interpreted these findings to mean that all perfectionists have a need for admiration from others, and perfectionism is a result of trying to cope with insufficient empathetic reflection and inadequate idealized figures. With this interpretation, maladaptive perfectionism would then originate from unmet grandiose needs and inadequate idealized figures that model having high standards and suffer psychological consequences as a result of not meeting them. Adaptive perfectionism would be derived from the

same grandiose needs and idealized figures with similar high standards, but without the adverse consequences tethered to idealization. Thus, these aspects of self psychology might be factors predictive of perfectionism (Rice & Dellwo, 2002).

Integrating this theory into the study provides a framework that already consists of concepts such as perfectionism and defensiveness. In addition, Kohut's theory of self also includes an explanation for the development of perfectionistic tendencies, which is highly debated in the current literature. Although the work is entirely theoretical and restricted to a more psychodynamic viewpoint, this still provides a more direct structure for the concept of perfectionism.

Defensiveness

Kohut's theory of self psychology also includes defensive constructs labeled compensatory structures and defensive strategies. Compensatory structures are stable behaviors that actively make up for a "defect," not just cover it up. Defensive strategies are similar to compensatory structures, however they focus directly on the defective area in order to conceal it (Kohut, 1977). An example of a compensatory structure would be general defensiveness to cover up something psychologically distressing. An example of a defensive strategy would be purposefully hiding something psychologically distressing from others. Defensive structures appear to be congruent with an existing construct called self-concealment. Self-concealment is defined as a tendency to actively hide potentially negative or distressing personal information from others, including therapists (Larson & Chastain, 1990).

Self-Concealment

Research on self-concealment has shown the construct to be related to many problematic psychological aspects. In particular, studies have found self-concealment to be associated with anxiety, depression, shyness, and negative self-esteem (Ichiyama, Colbert, Laramore, Heim,

Carone, & Schmidt, 1993). Self-concealment has also been linked to general psychological distress and a tendency to avoid psychological treatment (Cepeda-Benito & Short, 1998).

Research involving the functionality of self-concealment has shown the construct to tap aspects of defensive coping (Ritz & Dahme, 1996). All of these problems associated with self-concealment are also issues faced by perfectionists, as mentioned earlier.

A recent study by Kawamura and Frost (2004) examined self-concealment as a mediator between perfectionism and psychological distress. The authors used five subscales from the Multidimensional Perfectionism Scale (Concern Over Mistakes, Doubts About Actions, Parental Criticism, Parental Expectations, and Personal Standards; Frost et al., 1990) to measure perfectionism, as well as self-reports on self-concealment and of psychological distress. Their results show self-concealment to be a significant mediator in the relationship between maladaptive perfectionism and psychological distress. The resulting model positioned perfectionism as related to high levels of psychological distress, with self-concealment influencing this relationship and being partially responsible for the resulting psychological distress. This relationship is important because self-concealment is identified as a defensive mechanism (Cramer, 1991).

Defensive Mechanisms

There are many different defensive coping mechanisms in the literature, and many different measures aimed at those constructs. Some of these constructs have been included in the DSM-IV-TR, and others, such as self-concealment, are more independently validated (American Psychiatric Association, 2003). For example, a commonly measured form of defensiveness, known as ego defense, is listed in the DSM-IV-TR. Defenses can further be grouped as mature, immature, and neurotic, referring to the adaptiveness of each defense. Mature ego defenses are the most adaptive and include humor, sublimation, and suppression. Immature

ego defenses include more childish mechanisms such as regression, passive aggression, and acting out. Neurotic ego defenses are the least adaptive, including mechanisms like displacement, repression, and isolation, and are generally seen in more pathological populations (Andrews, Singh, & Bond, 1993). Of these three types of ego defenses arranged by adaptiveness, it would seem possible that different types of perfectionists may employ different styles of defenses.

In relation to defenses, Dickinson and Ashby (2005) investigated perfectionists' ego defense styles using the Defense Styles Questionnaire (Andrews et al., 1993). They discovered that maladaptive perfectionists tend to employ more immature defense styles compared to adaptive perfectionists and non-perfectionists. The third defense styles construct, neurotic, was distinctly associated with severe psychopathology but was not found to have any significant relationship with perfectionism (Dickinson & Ashby, 2005). Discovering that perfectionists have an ego fixation makes important connections to Kohut's self psychology and the defensive structures. Dickinson and Ashby (2005) have called for further validation of defensiveness in perfectionists.

Ego fixation is the consequence of an excessively critical superego that results in overly harsh self-criticism, meaning the person is exceedingly obsessed with the internal feedback received (Sorotzkin, 1985). The finding that perfectionists have an ego fixation brings around full circle the idea that perfectionists may be experiencing frustrated egocentric, grandiose needs. As hypothesized by Rice and Dellwo (2002) and Dickinson and Ashby (2005), perfectionists may be having defensive reactions to these frustrated needs, and perfectionism itself may be a defense mechanism. For instance, if a child's grandiose needs are not met and she/he develops a narcissistic definition of self, perfectionism could be the mechanism to defend and maintain that

grandiose identity. Defensiveness is a multifaceted construct and clearly one that is difficult to define. Some of the definitional challenges can be attributed to dense and diverse theoretical orientations and their explanations of defensiveness. Although theoretical orientations may vary in their explanation of the function served by defensiveness, most agree on forms that defensiveness can take. As a result, there has been a trend in the literature towards measuring a general tendency to be defensive rather than measuring specific mechanisms; several popular and highly regarded psychological assessment instruments, such as the MMPI-2 (Butcher et al., 1989), address defensiveness in this more general manner (Cramer, 1991).

Current Study

An established theory that can be applied to the development of perfectionistic tendencies and associated defensiveness is Kohut's self psychology. This theory includes two types of defensiveness, one that is defensive of the self and one that conceals something psychologically distressing from the self and others. Previous studies have examined specific mechanisms of defensiveness in perfectionists, such as ego defenses, but none have investigated a general tendency to be defensive. The present study examined the association between perfectionism and different forms of defensiveness, and also attempted to replicate earlier findings regarding the link between perfectionism and self psychology dimensions.

Rice and Dellwo (2002) examined Kohut's self psychology constructs in perfectionists using the MPS (Frost et al., 1990) and found that maladaptive perfectionists were the least well-adjusted. As a conceptual replication of Rice and Dellwo (2002), a new and refined method for the classification of perfectionists was used to identify maladaptive, adaptive, and non-perfectionists. These groups were measured on key self psychology variables derived from the Superiority and Goal Instability Scales, namely grandiosity and idealization. The primary hypothesis was that results were expected to be consistent with Rice and Dellwo's findings and

should further support the application of Kohut's theory to perfectionists. Specifically, it was expected that maladaptive perfectionists would present more goal instability than adaptive and non-perfectionists, and both types of perfectionists would have distressed superiority needs when compared with non-perfectionists.

Defensive aspects of perfectionism were also examined. Dickinson and Ashby (2005) investigated defense styles based on the Defense Styles Questionnaire (Andrews et al., 1993), which assesses specific ego defenses. The results of their study make important ties to frustrated self psychological needs in perfectionists. Their findings also revealed that maladaptive perfectionists have a tendency to use immature types of ego defense mechanisms more than other types of defenses; unfortunately they did not assess a global tendency to be defensive, only specific ego defenses. In a more global assessment of defensiveness, the K-Scale of the MMPI-2 (Butcher et al., 1989) was used to measure perfectionists' tendencies to be defensive. It was expected that maladaptive perfectionists would have generally higher K-Scale scores than adaptive and non-perfectionists, which would indicate problematic defensiveness.

Kohut's theory of self psychology includes defensive strategies that conceal a "defect," which was hypothesized to relate to self-concealment. Kawamura and Frost (2004) examined self-concealment in perfectionists with maladaptive qualities and found a mediator relationship between perfectionism and psychological distress. The current study explored how self-concealment extends to adaptive perfectionists, as well as to maladaptive and non-perfectionists. Results were expected to show that both maladaptive and adaptive perfectionists would have equally high tendencies to self-conceal, which would be significantly greater than non-perfectionists. Adaptive perfectionists were hypothesized to have a tendency to self-conceal similar to maladaptive perfectionists because research has shown that both types of perfectionists

are motivated by recognition of performance and are highly perceptive of performance relative to others (Mills & Blankstein, 2000).

All of the constructs previously mentioned generally accompany, or are accompanied by, some degree of psychological distress. The Hopkins Symptom Checklist (Green, Walkey, McCormick, & Taylor, 1988) is a well supported measure of psychological distress and can provide data to support the notion of heightened distress with the presence of perfectionism and defensiveness. Consistent with previous research, it was expected that those who score in the more maladaptive range with perfectionistic tendencies, defensiveness, self-concealment, and disrupted selfobject needs will have a higher level of psychological distress (Aldea & Rice, 2006). More specifically, it was anticipated that maladaptive perfectionists would report the highest levels of psychological distress, followed by non-perfectionists, and adaptive perfectionists having the lowest distress. This would also allow for another look into the relationship between self-concealment and psychological distress as investigated by Kawamura and Frost (2004).

A possible confound in this study was that, although conceptually distinct, the proposed measures self-concealment (Self-Concealment Scale; Larson & Chastain, 1990) and general defensiveness (MMPI-2 K-Scale; Butcher et al., 1989) may not yield psychometrically distinct scores, an idea which has not yet been empirically explored. As a preliminary analysis, this study investigated the discriminant validity of the scores derived from these two questionnaires. It was expected that the two scores would in fact measure separate constructs. Ritz and Dahme (1996) explored the SCS as a measure of defensive coping and found it to tap a specific aspect of defensiveness, but they did not address the possibility that it might also represent a global measure of defensiveness. Whereas other measures similarly tap specific aspects of

defensiveness, such as the Defensive Styles Questionnaire measuring ego defense, the K-Scale has been hypothesized to work as a measure of global defensiveness. Therefore, it is important to ensure that the Self-Concealment Scale and the K-Scale are not measuring the same construct.

Summary of Hypotheses

To summarize the theoretical direction of this study, the following list includes each research question and its associated hypothesis:

- 1) Is the Self-Concealment Scale psychometrically distinct from the MMPI-2 K-Scale? I expected to find evidence for discriminant validity in the direction that the two scales are measuring different constructs.
- 2) How do new measures of perfectionism relate to self psychology constructs? I expected to find that maladaptive perfectionists have more goal instability than adaptive and non-perfectionists, and that both types of perfectionists have comparable degrees of disrupted superiority development compared with non-perfectionists.
- 3) How strong is the tendency for perfectionists to be defensive? I expected that maladaptive perfectionists would display more problematic defensiveness than adaptive and non-perfectionists.
- 4) How strong is the tendency for perfectionists to self-conceal? I expected that both adaptive and maladaptive perfectionists would have a higher tendency to self-conceal compared to non-perfectionists.
- 5) How distressed are perfectionists? I expected to find that the most maladaptive and defensive perfectionists would report the most psychological distress, followed by adaptive perfectionists, and lastly non-perfectionists.

CHAPTER 3 METHOD

Participants

Participants were 304 college students at a large southeastern university and were recruited from multiple sections of an undergraduate general psychology course. Information about the study was posted for students in the psychology research pool, where students are expected to participate in research or complete an alternate activity as required by the course. General psychology is a foundation-level course that includes students from a variety of majors. Participants completed the measures online. Seventeen participants were then removed from the final sample due to incorrectly answering validity items, such as “Please answer this question as 3 – Moderately Disagree,” that were used to screen for random or careless responding. Demographic information was collected through a self-report survey (see Appendix A). The final sample included 287 participants consisting of 124 men (43.2%), 158 women (55.1%), and 5 with missing gender data (1.7%). Participants ranged in age from 18 to 26 ($M = 18.95$, $SD = 1.39$). Approximately 55.7% of the sample was White/Euro-American, 12.9% Black/African-American, 12.2% Latino/a, 11.8% Asian/Asian-American, 5.5% Multiracial/Other 0.7% Pacific Islander, 0.3% Native American, and 0.7% with missing data. Of the total sample, 151 participants had a grade point average to report, which ranged from 2.0 to 4.0 ($M = 3.43$, $SD = 0.58$) based on a scale from 1.0 to 4.0 (participants who did not yet have an official GPA were asked not to provide an answer).

When examining differences between the participants that were retained for the analyses ($N = 287$) and those that were excluded ($N = 17$), the differences are of no consequence. There were no significant differences between the two groups on any of the measured variables, age, or Grade Point Average. A significant difference was found between male versus female

participants in the rate of exclusion [$\chi^2 (1, N = 294) = 4.47, p < .05$]. Of the 17 participants excluded, 75% were male ($N = 9$), 25% female ($N = 3$), and 5 did not provide gender data and were excluded for the purposes of scoring the K-Scale. There was also a significant difference in exclusion based on ethnicity [$\chi^2 (1, N = 297) = 14.65, p < .05$]. Of the excluded participants, 50% were White/Euro-American ($N = 6$), 25% Black/African-American ($N = 3$), 16.7% Asian/Asian-American ($N = 2$), 8.3% Native American ($N = 1$) and 5 did not provide data. Again, these losses due to exclusion criteria were miniscule.

Measures

Perfectionism

The *Almost Perfect Scale-Revised* (APS-R; Slaney, Ashby, & Trippi, 1995; Slaney, Rice, Mobley, Trippi, & Ashby, 2001) will be used to assess dimensions of perfectionism. The APS-R is a self-report questionnaire consisting of 23 items that participants rate using a 7-point Likert scale (1 = “strongly disagree” to 7 = “strongly agree”; see Appendix B). The APS-R has three subscale scores: High Standards (7 items), Discrepancy (12 items), and Order (4 items). Items are worded as personal attributes, such as, “I am hardly ever satisfied with my performance,” and “I have a strong need to strive for excellence.” The High Standards subscale measures the respondent’s standards and expectations for performance. The Discrepancy subscale evaluates the perception of discrepancy between expectations for performance and self-evaluation of meeting those standards. The Order subscale assesses a need for organization and structure. The APS-R subscale scores have demonstrated adequate reliability, with Cronbach’s alphas being .85 (High Standards), .92 (Discrepancy), and .86 (Order). Construct validity for the measure has ranged from .49 to .83 (Rice & Slaney, 2002; Slaney, et al., 2001). The High Standards and Order subscales differentiate perfectionists from non-perfectionists, and the Discrepancy subscale taps maladaptive dimensions of perfectionists when combined with very high scores on

High Standards. Perfectionists are grouped based on cutoff scores empirically validated by Rice and Ashby (2007). Using this method, participants with scores of 42 or higher on the High Standards subscale are classified as perfectionists, and those with scores lower than 42 are classified as non-perfectionists. Perfectionists' with scores of 42 or higher on the Discrepancy subscale are labeled maladaptive perfectionists, and perfectionists with scores below 42 on Discrepancy are labeled adaptive perfectionists.

Self Psychology

The *Superiority and Goal Instability Scales* (SGIS; Robbins & Patton, 1985) will be used to measure self psychology constructs based on unmet selfobject needs. The SGIS contains 20 self-report items that participants respond to using a 6-point Likert scale (1 = “strongly agree” to 6 = “strongly disagree”; see Appendix C). The measure contains two subscales for Superiority (10 items) and Goal Instability (10 items). Examples of items are “I have confusion about who I am” and “Running the show means a lot to me.” The Superiority scale measures the grandiosity construct and the Goal Instability scale taps idealization, which as a whole assesses self psychological needs consistent with Kohut (1971, 1977). Both subscales have demonstrated high internal consistency with alphas of .81 (Idealization) and .76 (Grandiosity), as well as strong test-retest reliability over a 2 week interval ($r = .76$ and $r = .80$). Both subscales were found to be independent of each other, have strong construct validity, and adequate convergent validity with other personality inventories. Reliability and validity measurements were based on college student samples. The items of this measure are scored in such a way that higher scores are indicative of a more adaptive self, thus lower scores are used to identify more severe disruptions in self psychological needs (Robbins & Patton, 1985).

Defensiveness

The *MMPI-2 K-Scale* (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) is a measure of defensiveness. The K-Scale was developed to identify persons who attempt to present themselves in a favorable or unfavorable light. The K-Scale is used in the context of the full MMPI-2 as a correction for defensiveness, similar to a covariate; however, there is evidence that the K-Scale can be used separately as a global assessment of defensiveness in a non-pathological population (Graham, 2006). The scale includes 30 items rated as “True” or “False,” where higher scores on the K-Scale are associated with more defensiveness in both pathological and non-pathological populations (see Appendix D). The KR-20 internal consistency for this scale is .74 for men and .72 for women (Butcher et al., 1989). Several studies have been conducted to establish the content and construct validity through eliciting responses that activate the MMPI-2 defensiveness scales (Graham, Watts, & Timbrook, 1991; Wetter, Baer, Berry, Robison, & Sumpter, 1993; Lim & Butcher, 1996). The K-Scale includes items that, when answered false, are indicative of defensiveness and are reverse-scored to reflect this.

The *Defense Style Questionnaire – 40* (DSQ-40; Andrews, Singh, & Bond, 1993) is a measure of 20 defense mechanisms consistent with those in the DSM-IV-TR (American Psychiatric Association, 2003). These defense styles are grouped as mature (sublimation, suppression, anticipation, altruism, and humor), immature (projection, passive aggression, acting out, fantasy, hypochondriasis, and dissociation), and neurotic (displacement, repression, isolation, and reaction formation). The DSQ-40 is a more concise and refined version of the original 88-item instrument developed by Bond, Gardner, Christian, and Sigal (1983). Items are answered on a Likert scale ranging from 1 (“strongly disagree”) to 9 (“strongly agree”) based on personal agreement with the statement; an example would be “I am able to laugh at myself pretty

easily” (see Appendix E). Cronbach’s alphas for the three defense styles have been demonstrated at .68 (mature), .58 (neurotic), and .80 (immature), which are borderline on being inadequate and should be considered with caution.

Self-Concealment

The *Self-Concealment Scale* (SCS; Larson & Chastain, 1990) measures a person’s tendency to self-conceal potentially distressing or negative personal information. The SCS is a 10-item self-report questionnaire rated using a 5-point Likert scale (1 = “strongly disagree” to 5 = “strongly agree”; see Appendix F) with higher scores indicating higher levels of self-concealment. Examples of items are, “When something bad happens to me, I tend to keep it to myself,” and “My secrets are too embarrassing to share with others.” Larson and Chastain (1990) found the internal consistency of the measure to have a Cronbach’s coefficient alpha of .83, as well as good retest reliability ($r = .74$). Kawamura and Frost (2004) measured reliability to be .90. The measure has demonstrated adequate construct validity as well as adequate discriminant validity from constructs such as self-disclosure, depression, anxiety, and other psychological issues. The measures of internal consistency and validity from both Larson and Chastain (1990) and Kawamura and Frost (2004) were based on samples of college students. This measure is statistically distinct from self-disclosure.

Psychological Distress

The *Hopkins Symptom Checklist – 21* (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988) is a 21-item, self-report measure of psychological distress. The HSCL-21 is a condensed version of the original 58-item measure which included three subscales: General Feelings of Distress, Somatic Distress, and Performance Difficulty. The HSCL-21 was constructed from the seven strongest items from each subscale, and has shown to be valid and reliable. Previous

studies have found strong reliability for the HSCL-21 with a reliability coefficient of .89 (Kawamura & Frost, 2004). Consistent with previous research and the specific interest of this study, the overall score of this measure was used in the statistical analysis and not the individual subscales. Items are rated on a 4-point Likert scale (1 = “Not at all” to 4 = “Extremely”; see Appendix G) based on recent personal experiences, with higher scores related to higher levels of psychological distress. Examples of items include “Feeling inferior to others” and “Blaming yourself for things.”

Procedure

Recruited participants were given an online informed consent form (see Appendix H) describing the nature of the study as research on personality characteristics. All consenting participants were shown a set of questionnaires including the APS-R, SGIS, MMPI-2 K-Scale, and SCS measures, as well as questions about general demographic information. Throughout the survey were items such as “Do not answer this question” to maintain validity checks on the integrity of responses. To control for sequencing effects, the order of questionnaire presentation was randomized and recorded, but the demographic questions always appeared last in the sequence. The combinations of measures resulted in an even distribution of 24 different sequences, each sequence being comparably represented, and no sequence appearing more than four times across all participants. Participants completing the questionnaires were awarded extra credit or research credits as per their course enrollment.

CHAPTER 4 RESULTS

Descriptive Statistics and Preliminary Analyses

Table 4-1 displays the range of scores, means, and standard deviations for the individual scale scores. When compared to other research, the means and standard deviations obtained from these participants were nearly identical, with the exception of the DSQ scores which were all lower on average. Table 4-2 includes correlations among all measures and subscales, as well as internal consistency coefficients for each measure. The internal consistencies reported in this study were comparable to what previous research has shown, with the exception of the MMPI-2 K-Scale which was considerably lower than initially found by Butcher et al. (1989).

Perfectionists were grouped based on the cutoff scores validated by Rice and Ashby (2007). This method resulted in groupings of 78 maladaptive (27.2%), 81 adaptive (28.2%), and 128 non-perfectionist (44.6%) participants. The demographic compositions of each group were close representations of the sample as a whole (see Participants section). Table 4-1 displays the range of scores, means, and standard deviations for each scale and subscale based on perfectionism grouping.

It was hypothesized that the measure of self-concealment (SCS) would be psychometrically distinct from defensiveness (MMPI-2 K-Scale). As a preliminary analysis, the discriminant validity between the SCS and MMPI-2 K-Scale was assessed by correlating scale scores and calculating a 95% confidence interval for that correlation. The two measures were significantly negatively correlated ($r = -.40, p < .001$) in a direction and strength that must be cautiously considered when interpreting the results. However, the 95% confidence interval (.30 to .49) revealed no substantial concern about the discriminant validity of the scores.

The data fell within the accepted guidelines for normality assumptions, except for HSCL, Idealization, K-Scale, and High Standards scores. Following recommendations of Tabachnick and Fidell (2001), the deviations from normality were corrected through square root and reflected square root transformations, and those transformed scores were then used in the analyses below. Comparing the findings between analyses of transformed and original raw scores revealed no differences in conclusions derived from F-test results; however, post hoc results became more defined and a few more comparisons were significant as a result of the transformations. All data displayed in the tables is based on the raw, non-transformed scores, except for the post hoc analyses as necessary. Using multiple ANOVAs causes extra concern for Type I error, so a Bonferroni alpha adjustment was used to address this concern. Homogeneity of variance assumptions were met for all analyses, so Bonferroni post hoc analyses were conducted and effect sizes were reported based on the commonly accepted Cohen's f^2 statistic guidelines (Cohen, 1988). A summary of the sample means, standard deviations, and ANOVA results can be found in Table 4-3. Post hoc results are recorded in the table via subscript coding.

Perfectionism

The APS-R cutoff scores used by Rice and Ashby (2007) were confirmed in this study by examining group differences among the three subscales. The analyses showed significant group differences with the Discrepancy [$F(2, 286) = 121.83, p < .001$], High Standards [$F(2, 286) = 343.46, p < .001$], and Order [$F(2, 286) = 16.38, p < .001$] subscales. Each subscale was found to have a relatively high effect size, $f^2 = 1.01, f^2 = 1.35, f^2 = .32$ respectively. Post hoc analyses supported the group divisions based on the subscales with maladaptive perfectionists scoring highest on Discrepancy, adaptive and maladaptive perfectionists being equally elevated on High Standards and Order, and non-perfectionists with the lowest endorsement of subscales ($p < .001$).

Self Psychology

To assess group differences between perfectionists and non-perfectionists on self psychological needs scores, separate one-way Analyses of Variance (ANOVA) were conducted with SGIS subscale scores as the dependent variables. Results showed significant differences between perfectionist groupings on both the Idealization [$F(2, 286) = 28.77, p < .001$] and Superiority [$F(2, 286) = 3.61, p < .05$] scales. There was a large effect found for Idealization ($f^2 = .46$), but a small to medium effect size for Superiority ($f^2 = .16$). It is important to note that the SGIS is scored in the direction where lower scores represent a more maladjusted self. The post hoc analysis showed that maladaptive and non-perfectionists scored significantly lower on Idealization than adaptive ($p < .001$) and non-perfectionists ($p < .001$). Maladaptive perfectionists scored significantly lower than non-perfectionists ($p < .05$) on Superiority.

Defensiveness

To measure perfectionist group differences in global defensiveness, an ANOVA with MMPI-2 K-Scale scores as the dependent variable was conducted. Scores on this measure were converted into gender-based T-scores prior to analysis. The analysis shows a significant difference between perfectionists on defensiveness, $F(2, 286) = 13.87, p < .001$. The effect size for global defensiveness was moderate ($f^2 = .33$). Post hoc results showed that maladaptive perfectionists were generally less defensive than both adaptive ($p < .001$) and non-perfectionists ($p < .001$); however, there were no significant findings differentiating adaptive from non-perfectionists on global defensiveness.

T-scores on defensiveness ranged from a minimum of 30 to a maximum of 79, with a mean score of 45.6. According to Graham (2006), T-scores on the K-scale equal to or greater than 65 are the most problematic and indicate defensiveness in nonclinical populations. The results of this study showed that 4 adaptive and 4 non-perfectionists scored in this range, whereas

all maladaptive perfectionists scored between 30 and 56. It is important to note that on the MMPI-2, T-scores above 80 are considered extreme and can potentially invalidate a profile; this particular cut-off was not reached by any participant.

Defense mechanisms used by participants in the different perfectionist groupings were evaluated with ANOVAs, with DSQ subscale scores as the dependent variable. Results showed significant differences among perfectionists on the three defense style groupings as well as 11 of the 20 specific defense mechanisms. Significant differences were found among the groups on mature [$F(2, 286) = 3.69, p < .05$], immature [$F(2, 286) = 15.62, p < .001$], and neurotic [$F(2, 286) = 6.09, p < .01$] defense styles. The effect size found for the defense style groupings were small for mature ($f^2 = .16$), medium-large for immature ($f^2 = .36$), and medium for neurotic ($f^2 = .22$). More specifically, the post hoc analyses showed that adaptive perfectionists employ more mature defenses ($p < .001$) whereas maladaptive perfectionists tend to have more neurotic defenses ($p < .01$).

Self-Concealment

Group differences on self-concealment were analyzed using an ANOVA with SCS total score as the dependent variable. There was a significant difference among perfectionist groupings on self-concealment, $F(2, 286) = 11.41, p < .001$. A medium effect size was found for self-concealment ($f^2 = .30$). The post hoc analysis showed that adaptive perfectionists scored significantly lower than maladaptive ($p < .001$) and non-perfectionists ($p < .001$). There were no significant differences between maladaptive and non-perfectionists.

Psychological Distress

Differences between perfectionists and non-perfectionists in psychological distress were tested using an ANOVA with the total score of the HSCL as the dependent variable. There were significant differences found among perfectionist groupings on scores of overall psychological

distress, $F(2, 286) = 14.60, p < .001$. A large effect size was found for the overall level of psychological distress ($f^2 = .35$). The post hoc analysis found that maladaptive perfectionists reported significantly higher levels of overall distress than adaptive and non-perfectionists ($p < .01$). With the normalized data there was a difference between adaptive and non-perfectionists on distress that just meets the criteria for significance, suggesting that adaptive perfectionists experience less distress than non-perfectionists ($p = .05$).

Table 4-1. Sample means and standard deviations

Measure	Min.	Max.	M	SD
High Standards	20	49	41.37	6.17
Discrepancy	14	84	43.74	14.27
Order	6	28	20.11	5.06
Goal Instability	0	60	38.93	9.23
Superiority	0	50	31.44	7.07
K-Scale T-Score	30	79	45.62	8.69
Mature	18	68	44.72	8.52
Immature	32	165	97.80	19.63
Neurotic	8	64	39.69	9.20
SCS	0	48	27.18	8.57
HSCL	21	80	37.87	8.66

Note: HSCL = Hopkins Symptom Checklist-21, SCS = Self-Concealment Scale

Table 4-2. Scale correlations and reliability estimates

Measure	1	2	3	4	5	6	7	8	9	10	11
1. High Standards	<i>.87</i>										
2. Discrepancy	.03	<i>.93</i>									
3. Order	<i>.38**</i>	.02	<i>.89</i>								
4. Goal Instability	<i>.37**</i>	<i>-.49**</i>	<i>.27**</i>	<i>.85</i>							
5. Superiority	-.10	-.04	-.07	.07	<i>.77</i>						
6. K-Scale T-Score	-.11	<i>-.45**</i>	.00	<i>.31**</i>	.09	<i>.64</i>					
7. Mature	<i>.19**</i>	-.15	.13	<i>.20**</i>	-.05	.13	<i>.62</i>				
8. Immature	-.10	<i>.44**</i>	-.12	<i>-.47**</i>	<i>-.25**</i>	<i>-.47**</i>	.01	<i>.75</i>			
9. Neurotic	.14	<i>.18*</i>	<i>.18*</i>	-.05	-.07	-.12	<i>.34**</i>	<i>.29**</i>	<i>.58</i>		
10. SCS	-.131	<i>.37**</i>	-.13	<i>-.35**</i>	-.01	<i>-.40**</i>	-.12	<i>.34**</i>	.04	<i>.87</i>	
11. HSCL	-.04	<i>.48**</i>	.04	<i>-.45**</i>	-.06	<i>-.44**</i>	<i>-.20**</i>	<i>.42**</i>	<i>.26**</i>	<i>.43**</i>	<i>.86</i>

Note: HSCL = Hopkins Symptom Checklist-21, SCS = Self-Concealment Scale. Cronbach's coefficient alphas appear in italics on the diagonal. * $p < .01$. ** $p < .001$.

Table 4-3. Sample means, standard deviations, and ANOVA results per group

Measure	Maladaptive Perfectionists		Adaptive Perfectionists		Non-Perfectionists		<i>F</i> (2, 286)	<i>f</i> ²
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
High Standards	46.09 a	2.23	45.72 a	2.06	35.75 b	4.74	343.46***	1.35
Discrepancy	57.13 a	11.63	31.12 c	6.63	43.55 b	11.70	121.83***	1.01
Order	22.04 a	4.52	21.02 a	5.18	18.34 b	4.72	16.38***	.32
Goal Instability	36.77b	9.60	44.94 a	6.14	36.45 b	8.95	28.77***	.46
Superiority	29.82 b	7.34	31.30	7.14	32.52 a	6.71	3.61*	.16
K-Scale T-Score	41.60 b	7.26	48.16 a	8.30	46.45 a	8.94	13.87***	.33
Mature	44.87	9.26	46.65 a	8.64	43.41 b	7.77	3.69*	.16
Immature	103.72 a	19.96	88.23 b	16.57	100.26 a	19.16	15.62***	.36
Neurotic	42.73 a	10.30	38.31 b	8.79	38.72 b	8.36	6.09**	.22
SCS	29.13 a	8.24	23.49b	8.09	28.32 a	8.42	11.41***	.30
HSCCL	41.74a	9.45	34.72 c	7.37	37.50 b	8.06	14.60***	.35

Note: HSCCL = Hopkins Symptom Checklist-21, SCS = Self-Concealment Scale. Means that were significantly different based on Bonferroni and Games-Howell post hoc analyses are indicated by different lettered subscripts. * $p < .05$. ** $p < .01$. *** $p < .001$.

CHAPTER 5 DISCUSSION

The purpose of this study was to investigate defensive mechanisms utilized by different types of perfectionists. Previous research has shown that perfectionists have a general tendency to be defensive, however with only one aspect of defensiveness being measured, the authors called for further validation and exploration of the construct (Dickinson & Ashby, 2005). The main goal of the present study was to determine differences between types of perfectionists, compared to non-perfectionists, across different conceptualizations of defensiveness. This study also investigated the relationship between perfectionism and a theory of self which may provide a strong interpretative background for the role of defensiveness. For the purposes of interpretation, it is important to note that the non-perfectionist comparison group does not act as a control group of “normal” participants; they are grouped by simply *not* reporting high personal performance expectations and may be psychologically distressed in other ways.

Regarding self psychology constructs, it was hypothesized that a newer measure of perfectionism would yield results similar to the previous study, maladaptive perfectionists would show more goal instability, and that both adaptive and maladaptive perfectionists would have more superiority disruptions than non-perfectionists. This hypothesis was partially upheld with the results revealing that adaptive perfectionists endorse significantly less goal instability compared to maladaptive and non-perfectionists; however this study did not find a significant difference between maladaptive and non-perfectionists on this subscale. This finding demonstrates that maladaptive perfectionists have more unmet idealization needs and thus are less adaptively adjusted to this construct than adaptive perfectionists, which is consistent with the findings of Rice and Dellwo (2002) and provides support for their findings with a newer measure

of perfectionism. In addition, the results show that adaptive perfectionists are actually the most well-adjusted with this aspect of self psychology.

The current study also found that maladaptive perfectionists were significantly more disrupted on superiority needs than non-perfectionists. In contrast to Rice and Dellwo (2002), no significant difference in superiority needs was found regarding adaptive perfectionists, although the trends do suggest superiority disruption similar to maladaptive perfectionists. When examining the descriptive statistics for the subscales (see Table 4-1), again it can be seen that the mean scores of both maladaptive and adaptive perfectionists are lower than non-perfectionists, however this difference is not significant. This would point to perfectionists being more disturbed in their selfobject needs, but this conclusion is not statistically upheld.

According to Robbins and Patton (1985), the higher scores on the Goal Instability subscale obtained from adaptive perfectionists suggests that they have a stronger sense of self-esteem than maladaptive and non-perfectionists, which is strengthened by creating attainable goals inspired by idealized figures. Conversely, this may suggest that maladaptive and non-perfectionists do not have this sort of attachment to an ideal figure, have little direction for meeting goals, and possibly have a fear of committing to longer-term goals. The pattern of lower scores on the Superiority subscale from maladaptive perfectionists show they can become wrapped up in fantasies of grandiosity and fail to meet their standards, whereas adaptive and non-perfectionists have better self-esteem which may even be strengthened by meeting their standards. These interpretations are mostly relevant for adaptive and maladaptive perfectionists because their high standards are excessively difficult to reach, compared to non-perfectionists who create more reasonable standards for themselves.

The DSQ was used as a measure of defensiveness, specifically ego defenses. Although the scale measures 20 different defense mechanisms, the three main classifications of style were most important for this study. The research hypothesis stated that maladaptive perfectionists will display more problematic defensiveness than adaptive or non-perfectionists. Consistent with this hypothesis, results showed that maladaptive perfectionists endorsed using more neurotic and immature defense styles, whereas adaptive perfectionists were more prone to mature styles. Dickinson and Ashby (2005) found similar results, however they did not find a relationship between neurotic defense styles and maladaptive perfectionism. The additional finding in the current study may actually be confirming of the negative qualities of maladaptive perfectionism, as the neurotic defense style is generally associated with psychopathology.

Finding that maladaptive perfectionists tend to employ the most immature and neurotic defenses on the DSQ seems consistent with Kohut's self psychology framework in that perfectionistic tendencies may begin from conditions early on in life in which problematic parent-child dynamics set the stage for the development of problematic neurotic and immature defensive structures. These defenses, in turn, likely have a resounding effect on the person's approach to life, including the role they may play in the initiation and then management of maladaptive perfectionism. In other words, maladaptive perfectionism may develop from unmet and frustrated empathic needs during early childhood, these unmet needs trigger concerns about performance and critical self-evaluation (never feeling good-enough or worthy-enough for adequate parental responsiveness), which in turn prompt the development of largely tenuous and barely effectual defenses. Perhaps these defenses help explain the susceptibility maladaptive perfectionists have to psychological distress.

Interestingly, and at first blush, seemingly contradicting inferences made above, results based on the MMPI-2 K-Scale scores showed that maladaptive perfectionists were significantly *less* likely to be defensive than adaptive and non-perfectionists. No other significant differences were found to suggest a hierarchical structure of defensiveness between the groups. Considering the nature of maladaptive perfectionism, results were expected to show that this type of perfectionist would have more defensive tendencies than adaptive or non-perfectionists. Since this finding is not consistent with the other measures of defensiveness in this study, further research needs to be conducted to investigate the relationship between different conceptions and degrees of defensiveness.

With regards to the measures of defensiveness used in this study, it is important to note the correlations between the measures (see Table 4-2). It appears that the MMPI-2 K-Scale did not relate to the other variables in this study in the same directional as the other measures of defensiveness, especially the Self-Concealment Scale. According to research on the MMPI-2 cited by Graham (2006), there is the potential that the K-Scale may be a reflection of more positive characteristics such as psychological resiliency or ego strength. Related to this interpretation, there is the potential that the K-Scale was not a good measurement for a global defensiveness construct when taken out of the full MMPI-2 context. In terms of this research, Graham's (2006) alternative interpretation of the K-Scale would provide further evidence for the adaptive style of perfectionism that is under debate in the literature.

As another form of potential defensiveness, the tendency to self-conceal negative information was also measured using the SCS. Consistent with the defensiveness prediction, it was hypothesized that both adaptive and maladaptive perfectionists would have a stronger tendency to self-conceal than non-perfectionists. Results showed that adaptive perfectionists

were less likely to conceal information than maladaptive and non-perfectionists. No significant difference between maladaptive and non-perfectionists was found, however the trend suggests that maladaptive perfectionists may self-conceal the most. The mediator model used by Kawamura and Frost (2004) focused only on maladaptive perfectionists, and the results from this study support that decision. Although no empirical conclusions can be made comparing maladaptive to average non-perfectionists on their tendencies to self-conceal distressing information, the results at least show that maladaptive perfectionists self-conceal more often than adaptive perfectionists. This information appears to be consistent with the concurrent finding that maladaptive perfectionists utilize more immature and neurotic defense styles.

Another explanation for the results obtained about defensiveness may be that adaptive perfectionists prefer to be more open about their failures and levels of distress. By disclosing this information, they are much more likely to receive feedback about self-criticisms and a “reality check” that allows them to readjust their personal standards for performance. In contrast, maladaptive perfectionists may take less of a globally defensive approach to life, but when they do become defensive, they tend to use more immature defense styles such as self-concealment and never receive feedback about their performance and self-criticisms. It is also important to note the perplexity of maladaptive perfectionists reporting more immature, neurotic, and self-concealing defenses, yet they scored lower on global defensive tendencies. This combination of results may mean that although maladaptive perfectionists have more maladaptive defenses, they are less likely to use them; however this could also be an indication that the MMPI-2 K-Scale is not an appropriate measure for this application.

Considering the type of constructs researched in this study, it was hypothesized that maladaptive perfectionists would report higher levels of psychological distress than adaptive and

non-perfectionists. The result showed this to be an accurate prediction and provides continued support for the notion that perfectionistic qualities can contain psychologically disruptive components. The finding that maladaptive perfectionists have more feelings of distress and ruminate over performance issues is confirming that these are concerns at the core of more maladaptive perfectionism, and adaptive perfectionism to a lesser degree.

Implications of Results

Results of this study have provided further empirical support for the roles of defensiveness and self-concealment in perfectionism. The results show that maladaptive perfectionists employ defenses that are immature and neurotic, which is more aligned with the maladaptive qualities of maladaptive perfectionism. The MMPI-2 K-Scale shows maladaptive perfectionists being less defensive than adaptive and non-perfectionists, however this is likely unrelated to the aforementioned defense styles. Although maladaptive perfectionists have a lesser tendency towards global defensiveness, they are also actually more likely to self-conceal potentially distressing personal information. Relevant to clinical settings, these qualities may help explain why maladaptive perfectionists are less successful with psychotherapy since they are not inclined to disclose their distress, as well as employ immature and neurotic defenses when challenged. With such a strong denial of issues relevant to perfectionism, it is more apparent as to why maladaptive perfectionists rarely initiate therapy for these concerns (Blatt, 1995).

With further support for the relationship between perfectionism and self psychology constructs, it may be important for a therapist in a counseling setting to dedicate some focus to childhood relationships and interactions. It would appear that maladaptive perfectionists in particular have the most disrupted selfobject needs, which as previously mentioned is related to unmet empathic needs. Based on an article about applying self psychology to counseling, a

therapist then could concentrate on providing a therapeutic environment that is more sensitive to offering a corrective experience with empathic reflection, unconditional positive regard for those needs, and a focus on the defensive strategies and compensatory structures that defend the “defective” area (Patton & Robbins, 1982).

Limitations and Future Directions

A main limitation of this study is the generalizability of results to non-student populations. All participants were college students, and the demographics were not entirely representative of the general population; however, these results may be very applicable to other college students. As previously mentioned, the non-perfectionist grouping may contain participants that are psychologically distressed, just not in the realm of perfectionistic standards. Considering the unknown factors involved with this group, and the appearance of high Discrepancy scores on the APS-R, it may be important to investigate and describe this group more accurately rather than assume non-perfectionists serve as a healthy comparison group.

Models of perfectionism are based on data from mostly White/Euro-American men and women; however, perfectionism as a construct has been translated across cultures without much cultural conflict with its conceptualization. The cross-cultural validity of perfectionism has been extended to African-American (Mobley, Slaney, & Rice, 2005), Asian-American (Chang, 1998), Japanese (Sumi & Kanda, 2002), and Asian-Indian students (Slaney, Chadha, Mobley, & Kennedy, 2000). In most studies on the multicultural applicability of perfectionism, differences were found in each culture’s idea of the construct, namely what is important within that culture to be worthy of perfection. For example, Slaney et al. (2000) found that within the Asian-Indian culture, perfectionism is interpreted relative to beliefs of karma, reincarnation, and nirvana. These studies have demonstrated that current measures of perfectionism allow for an open

interpretation of “perfectionism” as it relates to the individual’s values and are not restricted to academic performance.

As a psychodynamic theory, self psychology has limited applicability across cultures. Kohut’s theory is based more on Western culture and philosophy, so the idea of “self” may not translate well or similarly to other cultures. The literature has shown this is particularly true of collectivist societies where any focus on the self is undesirable and only accentuates social isolation (Kozuki & Kennedy, 2004; Kitayama, 1992). Items on the SGIS measure of self psychological constructs do not appear to be outwardly culturally biased; however the questions are self-focused, which may be problematic for less individualistic respondents. It will be necessary to determine the cultural relevancy of psychodynamic theory, self psychology theory, and the SGIS questionnaire in future studies. One direction to consider is a shift towards identity and cultural identity development. Humans are cultural beings, so the area of cultural identity development may be more appropriate and is important to investigate as it relates to perfectionism and self psychology. It is also important to note that Kohut’s conception of self psychology is strictly a theoretical foundation for this study because of the interconnections between perfectionism, defensiveness, and psychological distress that are built into the theory. While this relationship is very convenient for this study, the theory of self psychology itself still needs more empirical support in order to draw developmental conclusions about perfectionism.

The Defense Styles Questionnaire is a measure of ego defense styles, which has roots in psychodynamic theory. As previously mentioned, this limits the cross-cultural applicability of this construct. However, an assessment of defensiveness from the MMPI-2 has been shown to be valid across different cultures (Butcher, 2004). Although no similar research has been conducted with self-concealment, this construct has a close relationship to other types of global

defensiveness that have demonstrated cross-cultural validity such as social desirability (Ghei, 1973). The cultural relevancy of defensiveness and self-concealment still needs to be determined.

The DSQ, MMPI-2 K-Scale, and SCS are all measures of different types of defensiveness, which was reflected with consistent results about the more disruptive defenses of maladaptive perfectionists. However, it was found that maladaptive perfectionists actually scored lower on the global measure of defensiveness, even though they were shown to have more immature styles. One explanation could be that maladaptive perfectionists do in fact have more maladaptive defense styles, but they do not utilize them very often. It is also important to consider that this combination of measures may not be the most appropriate to assess these constructs, which future studies will need to investigate.

The measures used in this study provide interesting associations between dependent variable scores and perfectionism categories, however they do not provide clear clinical guidance. For example, higher scores on the Self-Concealment Scale relate to a higher tendency to conceal negative or distressing information, but there are no guidelines that indicate at what level of responding self-concealment becomes problematic. The same issue can be applied to the HSCL, K-Scale (though somewhat clearer interpretive rules exist with MMPI-2 scales overall), and SGIS. Recognizing this conceptual issue with the measures raises questions about the limitations of results, but also calls for further research into the psychometric properties and clinical utility of these scales.

There is also the common limitation associated with using self-report measures which are open to the possible misinterpretations of participants and regional biases. This study is based on a correlational design, so the results must be carefully interpreted. The implied direction of effects in this study is one of several possibilities and limits the ability to draw causal inferences.

For example, the hypothesized direction is that self psychological issues lead to perfectionism which results in defensiveness and higher psychological distress; however it may also be that self psychological issues lead to defensiveness and psychological distress which acts as precursors to perfectionism. Future studies may investigate similar constructs with varying populations and designs that would help address concerns regarding internal and external validity.

As previously mentioned, the results of this study say more about what type of defenses perfectionists tend to employ, but the tendency and frequency to use them is unclear. The MMPI-2 K-Scale may be tapping this dimension but further research needs to be conducted in order to make this determination. With the knowledge about specific defenses that perfectionists use and the unexpected finding that more maladaptive perfectionists are actually lower on global defensiveness, future studies may want to focus on the frequency, intensity, duration, and onset of those mechanisms. A better understanding for the inner workings of these defenses can come from attempting to elicit and manipulate defensive responding.

Conclusions

The results of this study have shown continued support for the self psychology constructs as applied to perfectionism. Although the basis of this psychodynamic framework is predominantly theoretical, insight into the inner workings and development of perfectionistic tendencies can still be gained. By adding in the concurrent finding that maladaptive perfectionists are more psychologically distressed, we can see that there is certainly some form of disruption in their lives that needs to be studied and addressed.

Embedded into Kohut's self psychology theory are aspects of defensiveness that map on well to the more maladaptive qualities of perfectionism. When these constructs are measured across the different groupings of perfectionists we see that perfectionists, specifically maladaptive perfectionists, are inclined to employ these problematic defenses. The degree and

frequency of which these are actually utilized is still unclear and requires a closer look. As researchers and clinicians we are taking steps towards a fuller understanding of perfectionism, but there is still a lot to learn about the development of the issue and what barriers need to be broken down for successful treatment.

APPENDIX A
DEMOGRAPHIC QUESTIONNAIRE

1. Please circle the number next to your gender:
(1) MALE
(2) FEMALE
2. How old are you? _____ years
3. Please circle the number next to your Race/Ethnicity or please describe the specific group that you identify with the most in the blank next to your ethnicity (for example, Chinese American, German, Navajo, Alaskan Aleut):
(1) Asian or Asian-American _____
(2) Black, African-American _____
(3) Hispanic, Latino, Mexican-American _____
(4) Pacific Islander _____
(5) Native American or American Indian _____
(6) White, European American _____
(7) Multicultural Mixed Race _____
(8) Other, please specify _____
4. How many official organizations are you involved with at school (for example, clubs, athletics, fraternities/sororities, etc.)? _____ organizations
5. Please circle the number next to your current living situation while attending UF:
(1) live on campus in a residence hall
(2) live in a fraternity or sorority
(3) live off-campus in an apartment or house (includes Married Student Housing)
(4) live off-campus with parent(s)
(5) cooperative house
6. Please circle the number next to your college:
(1) Agricultural & Life Sciences (10) Journalism & Communications
(2) Business Administration (11) Law
(3) Dentistry (12) Liberal Arts & Sciences
(4) Design, Construction, & Planning (13) Medicine
(5) Education (14) Natural Resources & Environment
(6) Engineering (15) Nursing
(7) Fine Arts (16) Pharmacy
(8) Health Professions (17) Veterinary Medicine
(9) Health & Human Performance (18) Undecided, Undeclared
7. How many semesters have you completed at UF? (don't count the current semester, put 0 if you are a first semester student) _____ UF Semesters
8. How many semesters of college have you completed altogether (at UF or elsewhere)? _____ Total Semesters
9. Please indicate your undergraduate Grade Point Average: (skip this if you don't have a GPA yet) _____ GPA (4.0 scale)

APPENDIX B
ALMOST PERFECT SCALE – REVISED

The following items are designed to measure certain attitudes people have toward themselves, their performance, and toward others. It is important that your answers be true and accurate for you. In the space next to the statement, please select a number from "1" (strongly disagree) to "7" (strongly agree) to describe your degree of agreement with each item.

STRONGLY DISAGREE	DISAGREE	SLIGHTLY DISAGREE	NEUTRAL	SLIGHTLY AGREE	AGREE	STRONGLY AGREE
1	2	3	4	5	6	7

- _____ 1. I have high standards for my performance at work or at school.
- _____ 2. I am an orderly person.
- _____ 3. I often feel frustrated because I can't meet my goals.
- _____ 4. Neatness is important to me.
- _____ 5. If you don't expect much out of yourself you will never succeed.
- _____ 6. My best just never seems to be good enough for me.
- _____ 7. I think things should be put away in their place.
- _____ 8. I have high expectations for myself.
- _____ 9. I rarely live up to my high standards.
- _____ 10. I like to always be organized and disciplined.
- _____ 11. Doing my best never seems to be enough.
- _____ 12. I set very high standards for myself.
- _____ 13. I am never satisfied with my accomplishments.
- _____ 14. I expect the best from myself.
- _____ 15. I often worry about not measuring up to my own expectations.
- _____ 16. My performance rarely measures up to my standards.
- _____ 17. I am not satisfied even when I know I have done my best.
- _____ 18. I am seldom able to meet my own high standards for performance.
- _____ 19. I try to do my best at everything I do.
- _____ 20. I am hardly ever satisfied with my performance.
- _____ 21. I hardly ever feel that what I've done is good enough.
- _____ 22. I have a strong need to strive for excellence.
- _____ 23. I often feel disappointment after completing a task because I know I could have done better.
- _____ 24. Using the scale above, please rate the degree to which you agree that you are perfectionistic.

APPENDIX C
SUPERIORITY AND GOAL INSTABILITY SCALES

The following items measure attitudes about yourself. Please select a number from “1” (strongly agree) to “6” (strongly disagree) to describe your degree of agreement with each item.

STRONGLY AGREE 1	MODERATELY AGREE 2	SLIGHTLY AGREE 3	SLIGHTLY DISAGREE 4	MODERATELY DISAGREE 5	STRONGLY DISAGREE 6		
1.	It’s easier for me to start than to finish projects.....	1	2	3	4	5	6
2.	I wonder where my life is headed.....	1	2	3	4	5	6
3.	I don’t seem to make decisions by myself.....	1	2	3	4	5	6
4.	I don’t seem to have the drive to get my work done.....	1	2	3	4	5	6
5.	I lose my sense of direction.....	1	2	3	4	5	6
6.	I have more ideas than energy.....	1	2	3	4	5	6
7.	I don’t seem to get going on anything important.	1	2	3	4	5	6
8.	After a while, I lose sight of my goals.....	1	2	3	4	5	6
9.	I have confusion about who I am.....	1	2	3	4	5	6
10.	It’s hard to find a reason for working.....	1	2	3	4	5	6
11.	My friends follow my lead.....	1	2	3	4	5	6
12.	I deserve favors from others.....	1	2	3	4	5	6
13.	I’m witty and charming with others.....	1	2	3	4	5	6
14.	My looks are one of the things that attract others to me	1	2	3	4	5	6
15.	I could show up my friends if I wanted to.....	1	2	3	4	5	6
16.	Running the show means a lot to me.....	1	2	3	4	5	6
17.	Being admired by others helps me feel fantastic.....	1	2	3	4	5	6
18.	Achieving out of the ordinary accomplishments would make me feel complete.....	1	2	3	4	5	6
19.	I catch myself wanting to be a hero.....	1	2	3	4	5	6
20.	I know that I have more natural talents than most.....	1	2	3	4	5	6

APPENDIX D
MMPI-2 K-SCALE

Read each statement and decide whether it is True as applied to you or False as applied to you. Please indicate your answer by selecting True or False – be sure to answer every question.

1. At times I feel like swearing
2. At times I feel like smashing things
3. I think a great many people exaggerate their misfortunes in order to gain the sympathy and help of others
4. It takes a lot of argument to convince most people of the truth
5. I have very few quarrels with members of my family
6. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it
7. Often I can't understand why I have been so irritable and grouchy
8. At times my thoughts have races ahead faster than I could speak them
9. Criticism or scolding hurts me terribly
10. I certainly feel useless at times
11. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important
12. I have never felt better in my life than I do now
13. What others think of me does not bother me
14. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things
15. I find it hard to make talk when I meet new people
16. I am against giving money to beggars
17. I frequently find myself worrying about something
18. I get mad easily and then get over it soon
19. When in a group of people I have trouble thinking of the right things to talk about
20. I have periods in which I feel unusually cheerful without any special reason
21. I think nearly anyone would tell a lie to keep out of trouble
22. I worry over money and business
23. At times I am all full of energy
24. People often disappoint me
25. I have sometimes felt that difficulties were piling up so high that I could not overcome them
26. At periods my mind seems to work more slowly than usual
27. I have often met people who were supposed to be experts who were no better than I
28. I often think, "I wish I were a child again"
29. I find it hard to set aside a task that I have undertaken, even for a short time
30. I like to let people know where I stand on things

APPENDIX E
DEFENSE STYLES QUESTIONNAIRE

This questionnaire consists of a number of statements about personal attitudes. *There are no right or wrong answers.* Using the 9-point scale shown below, please indicate how much you agree or disagree with each statement by selecting one of the numbers on the scale beside the statement.

STRONGLY DISAGREE	DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEUTRAL
1	2	3	4	5
SLIGHTLY AGREE	MODERATELY AGREE	AGREE	STRONGLY AGREE	
6	7	8	9	

1. I get satisfaction from helping others and if this were taken away from me I would get depressed.
2. I am able to keep a problem out of my mind until I have time to deal with it.
3. I work out my anxiety through doing something constructive and creative like painting or wood-work.
4. I am able to find good reasons for everything I do.
5. I am able to laugh at myself pretty easily.
6. People tend to mistreat me.
7. If something mugged me and stole my money, I'd rather he be helped than punished.
8. People say I tend to ignore unpleasant facts as if they didn't exist.
9. I ignore danger as if I was Superman.
10. I pride myself on my ability to cut people down to size.
11. I often act impulsively when something is bothering me.
12. I get physically ill when things aren't going well for me.
13. I'm a very inhibited person.
14. I get more satisfaction from my fantasies than from my real life.
15. I have special talents that allow me to go through life with no problems.
16. There are always good reasons when things don't work out for me.
17. I work more things out in my daydreams than in my real life.
18. I fear nothing.
19. Sometimes I think I'm an angel and other times I think I'm a devil.
20. I get openly aggressive when I feel hurt.
21. I always feel that someone I know is like a guardian angel.
22. As far as I'm concerned, people are either good or bad.
23. If my boss bugged me, I might make a mistake in my work or work more slowly so as to get back at him.
24. There is someone I know who can do anything and who is absolutely fair and just.
25. I can keep the lid on my feelings if letting them out would interfere with what I'm doing.

26. I'm usually able to see the funny side of an otherwise painful predicament.
27. I get a headache when I have to do something I don't like.
28. I often find myself being very nice to people who by all rights I should be angry at.
29. I am sure I get a raw deal from life.
30. When I have to face a difficult situation I try to imagine what it will be like and plan ways to cope with it.
31. Doctors never really understand what is wrong with me.
32. After I fight for my rights, I tend to apologize for my assertiveness.
33. When I'm depressed or anxious, eating makes me feel better.
34. I'm often told that I don't show my feelings.
35. If I can predict that I'm going to be sad ahead of time, I can cope better.
36. No matter how much I complain, I never get a satisfactory response.
37. Often I find that I don't feel anything when the situation would seem to warrant strong emotions.
38. Sticking to the task at hand keeps me from feeling depressed or anxious.
39. If I were in a crisis, I would seek out another person who had the same problem.
40. If I have an aggressive thought, I feel the need to do something to compensate for it.

APPENDIX F
SELF-CONCEALMENT SCALE

Please answer the following questions truthfully and accurately as they apply to you. In the space next to the statement, please select a number from 1 (strongly disagree) to 5 (strongly agree) to describe your degree of agreement with each item.

STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1	2	3	4	5

- _____ 1. I have an important secret that I haven't shared with anyone.
- _____ 2. If I shared all my secrets with my friends, they'd like me less.
- _____ 3. There are lots of things about me that I keep to myself.
- _____ 4. Some of my secrets have really tormented me.
- _____ 5. When something bad happens to me, I tend to keep it to myself.
- _____ 6. I'm often afraid I'll reveal something I don't want to.
- _____ 7. Telling a secret often backfires and I wish I hadn't told it.
- _____ 8. I have a secret that is so private I would lie if anybody asked me about it.
- _____ 9. My secrets are too embarrassing to share with others.
- _____ 10. I have negative thoughts about myself that I never share with anyone.

APPENDIX G
HOPKINS SYMPTOM CHECKLIST - 21

How have you felt during the past seven days including today? Use the following scale to describe how distressing you have found these things over this time.

NOT AT ALL	A LITTLE	QUITE A BIT	EXTREMELY
1	2	3	4

- _____ 1. Difficulty in speaking when you are excited
- _____ 2. Trouble remembering things
- _____ 3. Worried about sloppiness or carelessness
- _____ 4. Blaming yourself for things
- _____ 5. Pains in the lower part of your back
- _____ 6. Feeling lonely
- _____ 7. Feeling blue
- _____ 8. Your feelings being easily hurt
- _____ 9. Feeling others do not understand you or are unsympathetic
- _____ 10. Feeling that people are unfriendly or dislike you
- _____ 11. Having to do things very slowly in order to be sure you are doing them right
- _____ 12. Feeling inferior to others
- _____ 13. Soreness of your muscles
- _____ 14. Having to check and double-check what you do
- _____ 15. Hot or cold spells
- _____ 16. Your mind going blank
- _____ 17. Numbness or tingling in parts of your body
- _____ 18. A lump in your throat
- _____ 19. Trouble concentrating
- _____ 20. Weakness in parts of your body
- _____ 21. Heavy feelings in your arms and legs

APPENDIX H
ONLINE INFORMED CONSENT

Dear Student:

The purpose of this study is to measure some personal characteristics. Participation in this study involves a set of questionnaires that takes approximately 30 minutes to complete. You do not have to answer any question you do not wish to answer. No compensation is being offered for involvement in this study.

There are no known risks involved in completing the study and many students may find that they learn something about themselves from participating in this research. Nonetheless, if being part of the study makes you feel uncomfortable, you may consider speaking to a counselor who may be able to help you with your reactions. You can contact a counselor through the University of Florida Counseling Center (P301 Peabody Hall, 392-1575). You may benefit by participating in this study through increased awareness and self-understanding. You will also be contributing to knowledge regarding researchers' ability to understand personality. Your identity will be kept confidential to the extent provided by law. Your responses on the questionnaires will be assigned a code number and your name will not be used in any report.

You can only participate if you are 18 years of age, or older. Your participation in this study is completely voluntary. There is no penalty for not participating and you have the right to withdraw from the study at anytime without consequence.

If you have any questions about this research, you may contact David Hannah at joeyh@ufl.edu or (352) 359-5889, or Dr. Kenneth Rice at kg1@ufl.edu or (352) 392-0601 ext. 246. Any questions or concerns about your rights as a research participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL, 32611; or by phone at (352) 392-0433.

Thank you for your time. I sincerely appreciate your involvement in this research.

By typing your name below, you agree that you have read the procedure described above and voluntarily agree to participate in the study. You may print this page for your own records if you wish.

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BIOGRAPHICAL SKETCH

David Joseph Hannah was born November 26, 1983 in Washington D.C. He graduated cum laude from the University of Florida in 2005 with a Bachelor of Science in psychology and a minor in general education. David was admitted to the University of Florida Counseling Psychology doctoral program in 2006, and hopes to earn his Ph.D. within the next few years. His current academic pursuits include the study of perfectionism, defensiveness, suicide, and therapeutic interventions. His clinical work is focused on providing counseling services for college students, children/adolescents, and crisis intervention/suicide prevention.